

**Meeting of the Central Valley Flood Protection Board
May 29, 2015**

**Staff Report – 33 U.S.C. 408 Requests
to U.S. Army Corps of Engineers, Sacramento District**

**On Behalf of Three Rivers Levee Improvement Authority for
Western Pacific Interceptor Canal West Levee Improvement Project, Yuba County**

1.0 – ITEM

Consider Central Valley Flood Protection Board (Board) approval to send two letters (Attachments A1 and A2) to the U.S. Army Corps of Engineers (USACE) Sacramento District requesting permission to consider alteration of a portion of the Sacramento River Flood Control Project (SRFCP) along the west levee of the Western Pacific Interceptor Canal (WPIC) based on Application Nos. 19020 and 19020-1 and pursuant to Title 33, U.S.C. 408 (Section 408). The Section 408 letters from the Board are intended only to facilitate the USACE's review of the projects.

The letters state:

- That the Board has reviewed the relevant documents and has determined that the improvements will not be injurious to the public interest and will not impair the usefulness of the SRFCP.
- That within 180 days of completion of the proposed alteration, the Board will provide both information to the USACE for the purpose of preparing a revised Operation and Maintenance Manual for this portion of the SRFCP and As-built Plans and Specifications for the alteration.
- That if the proposed project is formally incorporated within the federal SRFCP by the USACE, the State of California, acting through the Board, will accept the altered project for operation and maintenance and hold and save the United States free from damage due to the construction works.

This is not a flood system improvement project hearing, and no construction permits are being considered for issuance at this time. This action is based upon Board staff's review of 65% plans and specifications. Prior to final project approval at the Board's flood system improvement project hearing, Board staff and the USACE Sacramento District will review more detailed plans; Board staff will receive a USACE Sacramento District Letter of Permission; and comply with all mandates under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Board staff is requesting that the attached draft letters be finalized and sent to USACE Sacramento District to complete the required Section 408 reviews for the proposed repair projects.

2.0 – APPLICANT

Three Rivers Levee Improvement Authority (TRLIA)

3.0 – PROJECT LOCATION

The project area is located in southern Yuba County, south of the town of Olivehurst (approximate population of 13, 600, 2010 census) and immediately east of State Route 70 (SR 70). The WPIC west levee is approximately 6.1 miles long and extends north from the confluence of the Bear River north levee (Station 0+00) to approximately Station 307+00, where it turns west, and forms the southern levee of the Olivehurst Detention Basin west of SR 70 (Attachment B).

The WPIC West Levee Improvement Project (WPIC WLIP) has been split into two (2) separate permit applications, as shown in Sections 3.1 and 3.2 (Attachment B). The project was split in order to separate the cutoff wall work in application No. 19020 from the rest of the project in application No. 19020-1. This independent USACE review of the projects allows for the cutoff wall application to be reviewed by both the USACE Sacramento District and Headquarters and the berm and access road work to be reviewed only at the USACE Sacramento District. This will allow the berm and access road work to begin as soon as possible after district approval.

3.1 – Application No. 19020 Location Specifics (approximately 1.4 miles)

Reach 1B – Station 0+00 to 30+50 (approximately 3,050 linear-feet)

Reach 3 – Station 134+00 to 167+50 (approximately 3,350 linear-feet)

Reach 4E – Station 238+50 to 248+50 (approximately 1,000 linear-feet)

3.2 – Application No. 19020-1 Location Specifics (approximately 2.6 miles)

Reach 2B – Station 115+00 to 119+00 (approximately 400 linear-feet)

Reach 4A – Station 167+50 to 190+10 (approximately 2,260 linear-feet)

Reach 4B – Station 190+10 to 196+00 (approximately 590 linear-feet)

Reach 4C – Station 196+00 to 215+00 (approximately 1,900 linear-feet)

Reach 4D – Station 215+00 to 238+50 (approximately 2,350 linear-feet)

Reach 5A – Station 248+50 to 259+00 (approximately 1,050 linear-feet)

Reach 5B – Station 259+00 to 278+00 (approximately 1,900 linear-feet)

Reach 5C – Station 278+00 to 286+00 (approximately 800 linear-feet)

Reach 5D – Station 286+00 to 310+50 (approximately 2,450 linear-feet)

4.0 – PROJECT DESCRIPTION

The purpose of the WPIC WLIP is to bring the entire WPIC west levee into compliance with the State's Urban Levee Design Criteria (ULDC). To meet this purpose, the project objectives are to improve the WPIC west levee to provide 200-year flood protection by correcting deficiencies related to seepage and slope stability, complete remedial construction activities to address identified geotechnical deficiencies, and to construct a landside access road from Station 135+00 to 309+00 for future operations and maintenance activities.

4.1 – Application No. 19020 Description

Along the west levee of the WPIC, TRLIA proposes to construct approximately (Attachment C1):

- 3,300 linear-feet of conventional cutoff wall, at approximately 50 feet deep, from Station 144+50 to 167+50 (Reach 3) and 238+50 to 248+50 (Reach 4E); and
- 1,500 linear-feet of deep mixing method (DMM) cutoff wall, at approximately 70 feet deep, from Station 9+50 to 24+50 (Reach 1B).

4.2 – Application No. 19020-1 Description

Along the west levee of the WPIC, TRLIA proposes to (Attachment C2):

- Place landside fill from approximately Station 115+00 to 119+00 (Reach 2B) and 286+00 to 310+50 (Reach 5D);
- Construct a drained berm from approximately Station 190+10 to 196+00 (Reach 4B);
- Construct a stability berm from approximately Station 259+00 to 278+00 (Reach 5B);
- Construct a toe access road from approximately Station 135+00 to 309+00 (Reaches 3 to 5D).

5.0 – AUTHORITY OF THE BOARD

California Water Code § 8534, 8590 – 8610.5, and 8700 – 8710

Title 23:

- § 6 - Need for a Permit
- § 13 - Evidentiary Hearings
- § 106 - Existing Encroachments within the Adopted Plan of Flood Control
- § 112 - Streams Regulated and Nonpermissible Work Periods
- § 116 - Borrow and Excavation Activities – Land and Channel
- § 120 - Levees
- § 121 - Erosion Control
- § 131 - Vegetation
- Rivers and Harbors Act of 1899, Title 33 United States Code, § 408 (Section 408)

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with this project from all pertinent agencies are shown below:

- Reclamation District 784 (RD 784) conditionally endorsed these projects on May 5, 2015 (Application No. 19020) and May 6, 2015 (Application No. 19020-1) (Attachments D1 and D2, respectively). Board staff will consider RD 784's conditions when preparing the draft permit for consideration by the Board at a future flood system alteration project hearing.

7.0 – PROJECT ANALYSIS

7.1 – Project Background and Objectives

For several years, TRLIA has undertaken significant effort to reduce risk to the RD 784 area. Work along the WPIC was performed in 2005 and 2006, prior to adoption of the ULDC. Following the State's evaluation under the Urban Levee Evaluations (ULE) program, as documented in the State's *Geotechnical Evaluation Report (GER), Existing Conditions, Reclamation District 784 Study Area, Urban Levee Evaluations Project*), TRLIA performed a design level evaluation and determined that certain portions of the WPIC west levee did not meet ULDC criteria. This evaluation is documented in the

Draft Geotechnical Alternatives Analysis, 200-Year Urban Levee Criteria Compliance Determination, Three Rivers Levee Improvement Authority Yuba County, August 6, 2014.

The proposed project improvements would bring the WPIC west levee into compliance with the ULDC, and is so doing provide 200-year protection for the surrounding urban area.

7.2 – Hydraulic Review

The proposed projects under Application Nos. 19020 and 19020-1 do not include any waterside alterations to the levee or floodway. Work under Application No. 19020 requires the levee to be degraded and re-built to the same geometry as the existing levee section, resulting in no change to hydraulics for the WPIC or the SRFCP. Board staff has determined that no hydraulic analysis is needed for either application.

7.3 – Geotechnical Review

Board staff has reviewed the geotechnical information provided by TRLIA for their 65% design and has determined that the proposed project is expected to result in no adverse geotechnical impacts to the WPIC or the SRFCP. The current design for both applications comply with applicable Title 23 and ULDC standards.

7.4 –Environmental Review

TRLIA and USACE, as the lead State and Federal agencies, are preparing a joint Initial Study/Mitigated Negative Declaration and Environmental Assessment to comply with the CEQA and the NEPA. The required mandates of CEQA and NEPA will be completed prior to the Board's consideration of approval of a permit as the non-Federal sponsor pursuant to Title 23 and Section 408. TRLIA anticipates the release of the public environmental document in June 2015.

7.5 – Project Benefits

The WPIC WLIP, as proposed by TRLIA, has the following benefits:

- It brings the project into compliance with the current ULDC
- It is consistent with the 2012 Adopted Central Valley Flood Protection Plan
- It provides 200-year protection to the surrounding urban area of Olivehurst
- It remediates current geotechnical deficiencies along the WPIC west levee
- It is consistent with Basin-wide planning efforts

8.0 – STAFF RECOMMENDATION

Staff recommends that the Board:

Approve:

- the Draft Section 408 Request Letters to USACE (Attachments A1 and A2), in substantially the form provided; and

Direct:

- the Executive officer to sign and send the letters to the USACE, Sacramento District.

9.0 – LIST OF ATTACHMENTS

A – Draft USACE 408 Request Letter

A1 – 19020 Draft USACE Section 408 Request Letter

A2 – 19020-1 Draft USACE Section 408 Request Letter

B – Project Maps and Photos

C – Project Design Plans

C1 – 19020 Project Design Plans

C2 – 19020-1 Project Design Plans

D – RD 784 Endorsement

D1 – 19020 RD 784 Endorsement

D2 – 19020-1 RD 784 Endorsement

Prepared By:	Nancy Moricz, PE, Senior Engineer, Projects & Environmental Branch
Environmental Review:	Andrea Buckley, Senior Environmental Scientist
Staff Report Review:	Eric Butler, PE, Supervising Engineer, Projects & Environmental Branch Chief
	Len Marino, PE, Chief Engineer
	Nicole Rinke, Deputy Attorney General

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682



May 29, 2015

Colonel Michael Farrell, Commander
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814

Subject: Three Rivers Levee Improvement Authority, Western Pacific Interceptor Canal
West Levee Improvement Project, Cutoff Wall Construction – Reaches 1B, 3, 4E
(Application No. 19020)

Dear Colonel Farrell:

Pursuant to 33 United States Code Section 408 (Section 408) as described by the U.S. Army Corps of Engineers (USACE) Engineering Circular 1165-2-216, Section 7c(2) *Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408*, the Central Valley Flood Protection Board (Board), on behalf of Three Rivers Levee Improvement Authority (TRLIA), is requesting permission to alter approximately 1.4 miles of the Sacramento River Flood Control Project (SRFCP) along the west levee of the Western Pacific Interceptor Canal (WPIC) in Yuba County, California.

The TRLIA levee system was authorized by the SRFCP by Congress in the Flood Control Act of 1917, as modified by subsequent Acts of 1928, 1937, and 1941, was completed in 1941.

For several years, TRLIA has undertaken significant effort to reduce risk to the Reclamation District 784 (RD 784) area. Work along the WPIC was performed in 2005 and 2006, prior to adoption of the Urban Levee Design Criteria (ULDC). Following the State's evaluation under the Department of Water Resources' Urban Levee Evaluations (ULE) program, as documented in its Geotechnical Evaluation Report (GER) Volumes 1 and 2 (URS, 2014a and URS, 2014b), TRLIA performed a design level evaluation, as documented in the August 2014 HDR Geotechnical Alternative Analysis (GAA) Report for the WPIC West levee. This report described the geotechnical evaluation of the WPIC west levee based on the ULDC, and outlined sections of the WPIC requiring remediation measures.

The proposed repair project consists of in-place repair/remediation by constructing approximately 3,300 linear-feet of conventional cutoff wall (Station 144+50 to 167+50 and 238+50 to 248+50, in Reaches 3 and 4E, respectively) at an approximate depth of 50 feet, and construction of approximately 1,500 linear-feet of deep mixing method (DMM) wall (Station 9+50 to 24+50 in Reach 1B) at an approximate depth of 70 feet. The project does not propose any raises to the existing levee height. Construction is proposed to begin in 2015 and is expected to be completed in 2016.

Colonel Michael Farrell, Commander

May 29, 2015

Page 2

Based on the Board's review of 65% plans, the Board concludes the following:

- That the Board has reviewed the relevant documents and has determined that the improvements will not be injurious to the public interest and will not impair the usefulness of the SRFCP.
- That within 180 days of completion of the proposed alteration, the Board will provide both information to the USACE for the purpose of preparing a revised Operation and Maintenance Manual for this portion of the SRFCP and As-built Plans and Specifications for the alteration.
- That if the proposed project is formally incorporated within the federal SRFCP by the USACE, the State of California, acting through the Board, will accept the altered project for operation and maintenance and hold and save the United States free from damage due to the construction works.

If you have any questions regarding this request, please contact me at (916) 574-0609, or your staff may contact Ms. Nancy Moricz, Senior Engineer, Projects and Environmental Branch at (916) 574-2381 or by email at nancy.moricz@water.ca.gov.

Sincerely,

Leslie Gallagher
Acting Executive Officer

Enclosure: Attachments for project application materials including all maps, 65% design drawings and specifications, and analyses submitted by TRLIA to the Board

cc: (via electronic file)

Mr. Paul Brunner, Executive Director
Three Rivers Levee Improvement Authority

Mr. Larry Dacus
MBK Engineers

Ms. Claire Marie Turner
MBK Engineers

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May 29, 2015

Colonel Michael Farrell, Commander
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814

Subject: Three Rivers Levee Improvement Authority, Western Pacific Interceptor Canal
West Levee Improvement Project, Berm and Access Road Construction
Reaches 2B, 4A – 4D, and 5A – 5D (Application No. 19020-1)

Dear Colonel Farrell:

Pursuant to 33 United States Code Section 408 (Section 408) as described by the U.S. Army Corps of Engineers (USACE) Engineering Circular 1165-2-216, Section 7c(2) *Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408*, the Central Valley Flood Protection Board (Board), on behalf of Three Rivers Levee Improvement Authority (TRLIA), is requesting permission to alter approximately 2.6 miles of the Sacramento River Flood Control Project (SRFCP) along the west levee of the Western Pacific Interceptor Canal (WPIC) in Yuba County, California.

The TRLIA levee system was authorized by the SRFCP by Congress in the Flood Control Act of 1917, as modified by subsequent Acts of 1928, 1937, and 1941, was completed in 1941.

For several years, TRLIA has undertaken significant effort to reduce risk to the Reclamation District 784 (RD 784) area. Work along the WPIC was performed in 2005 and 2006, prior to adoption of the Urban Levee Design Criteria (ULDC). Following the State's evaluation under the Department of Water Resources' Urban Levee Evaluations (ULE) program, as documented in its State's Geotechnical Evaluation Report (GER) Volumes 1 and 2 (URS, 2014a and URS, 2014b), TRLIA performed a design level evaluation, as documented in the August 2014 HDR Geotechnical Alternative Analysis (GAA) Report for the WPIC West levee. This report described the geotechnical evaluation of the WPIC west levee based on the ULDC, and outlined sections of the WPIC requiring remediation measures.

The proposed repair project consists of placement of landside fill from approximately Stations 115+00 to 119+00 and 286+00 to 310+50 (Reaches 2B and 5D, respectively); construction of a drained berm from approximately Station 190+10 to 196+00 (Reach 4B); construction of a stability berm from approximately Station 259+00 to 278+00 (Reach 5B); and construction of a toe access road from approximately Station 135+00 to 309+00 (reaches 4A – 5D). The project does not propose any raises to the existing levee height. Construction is proposed to begin in 2015 and is expected to be completed in 2016.

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Leslie Gallagher
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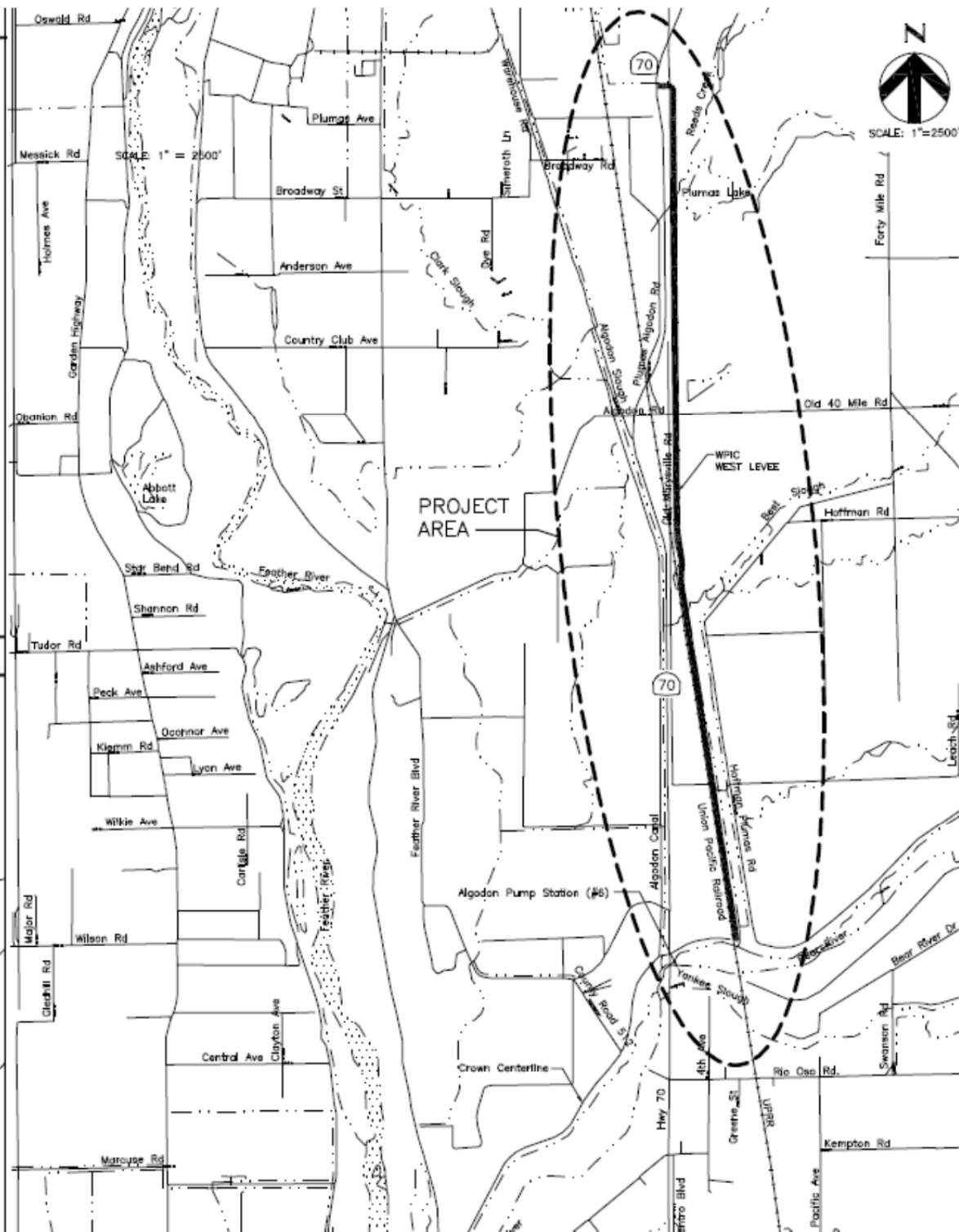
Ms. Claire Marie Turner
MBK Engineers

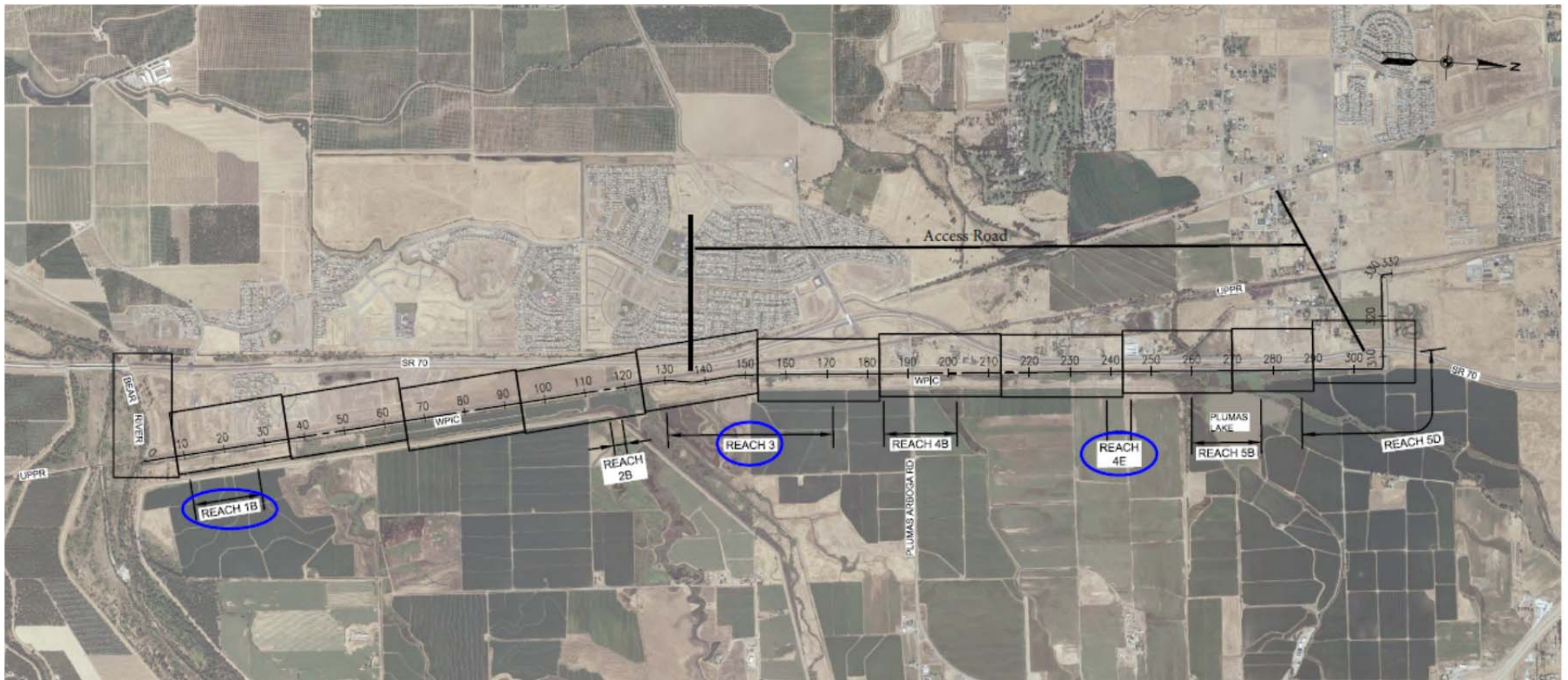
STATE MAP

N

NTS

PROJECT AREA





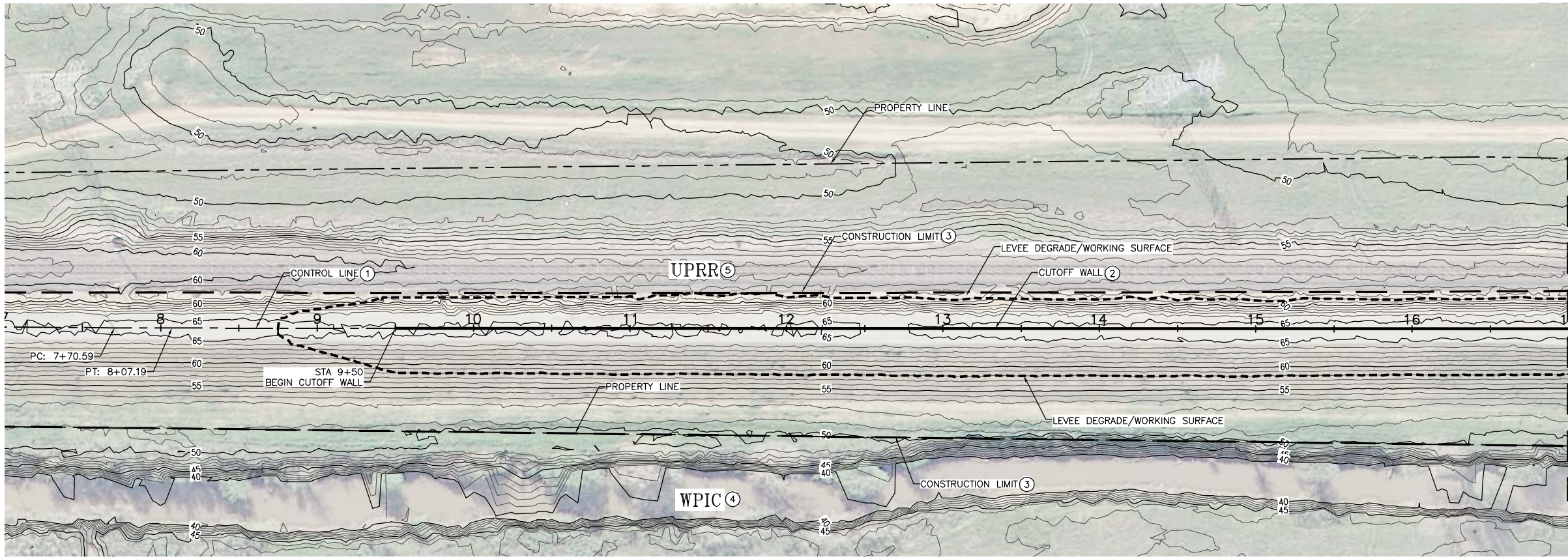
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Permit-1	Permit-2
Reach 2B	Reach 1B
Reach 4B	Reach 3
Reach 5B	Reach 4E
Reach 5D	
Landside Toe Access Road	



VICINITY MAP
 Western Pacific Interceptor Canal
 TRLIA 200-YEAR URBAN LEVEE CRITERIA COMPLIANCE

Date	August 2014
Figure	4

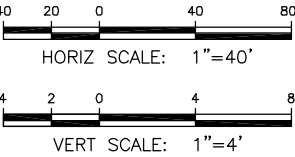
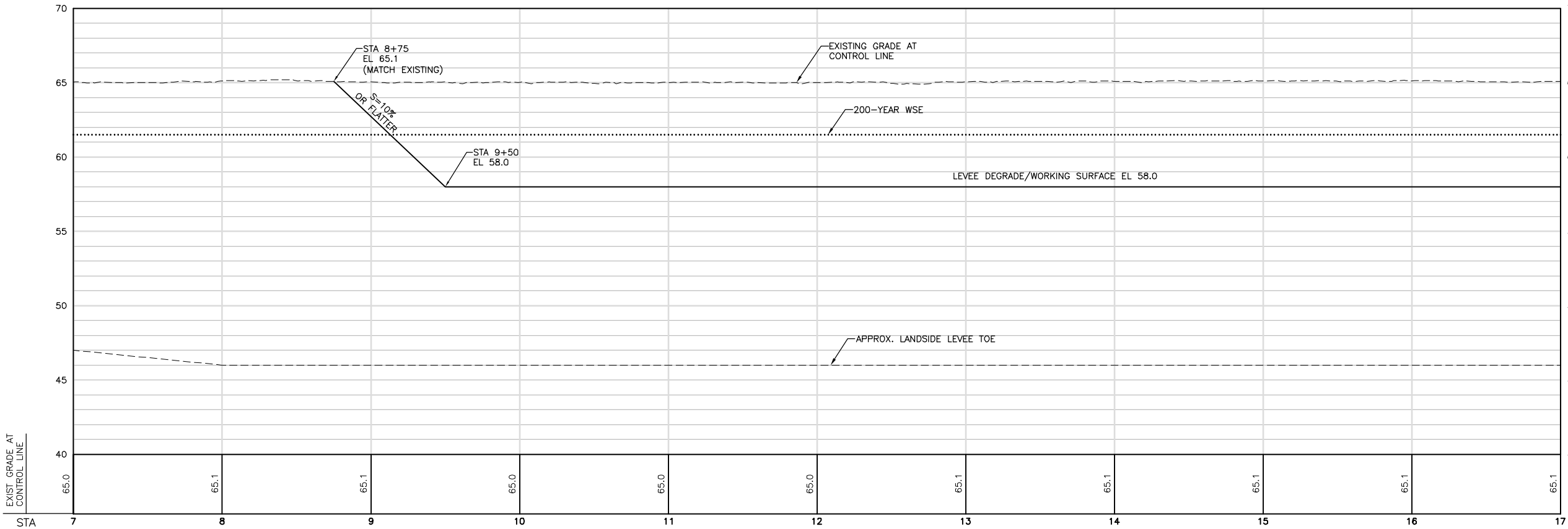


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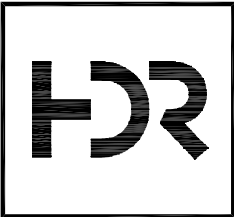
- 1 SEE SHEET G-008 FOR CONTROL LINE TABLES.
- 2 SEE SHEETS C-401 TO C-403 FOR CUTOFF WALL PROFILES.
- 3 CONTRACTOR SHALL PROVIDE HIGH VISIBILITY CONSTRUCTION FENCING AT THE CONSTRUCTION LIMIT.
- 4 WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL OF WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THE SPECIFICATIONS.
- 5 UPRR TO REMAIN. RAILROAD WILL BE IN OPERATION DURING CONSTRUCTION. CONTRACTOR TO PROTECT RAILROAD IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.

STA: 17+00 (SEE DWG C-102)

MATCH LINE



65% DESIGN



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
DRAWN BY	H. SUAREZ
CHECKED BY	B. JOHNSON
TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159



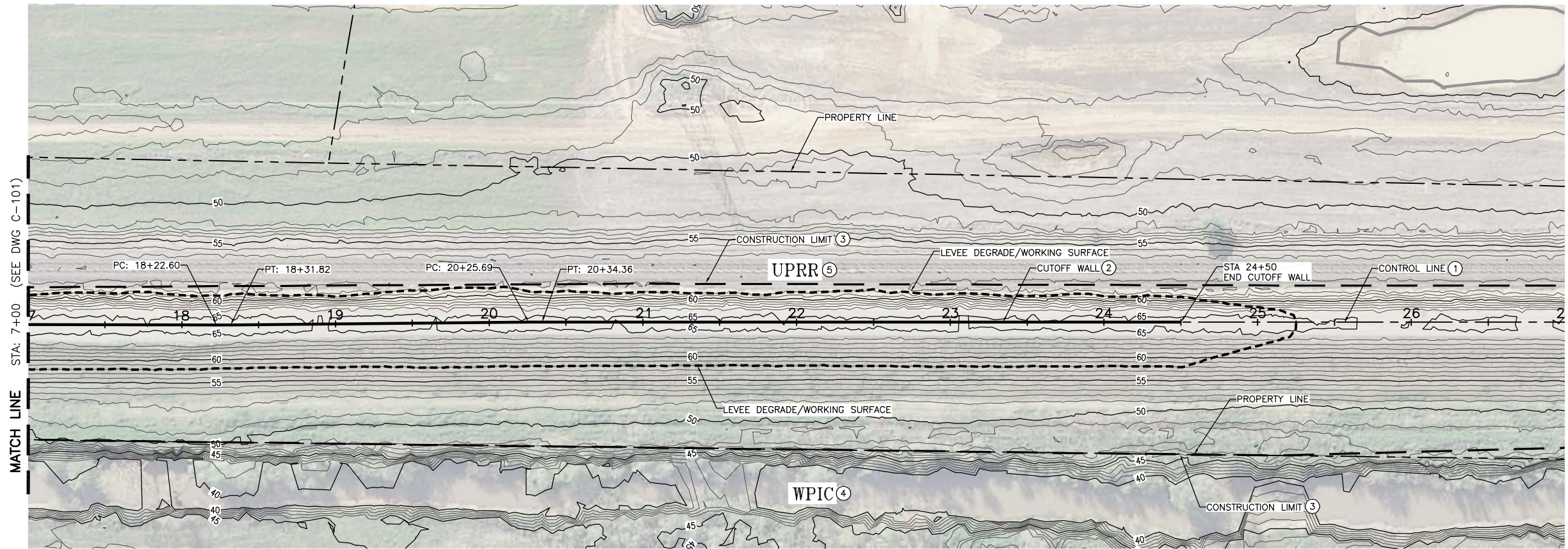
Three Rivers Levee Improvement Authority

TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

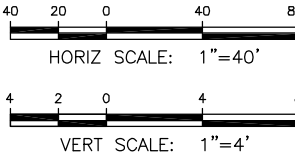
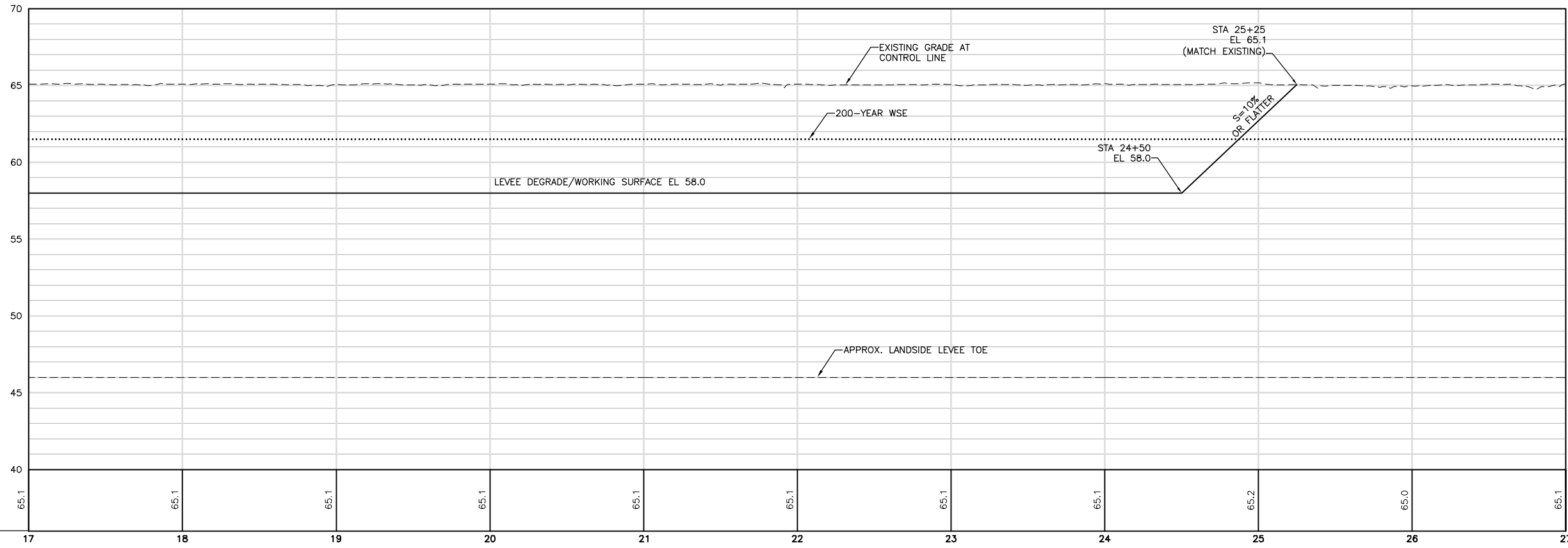
PLAN AND PROFILE
STA 7+00 TO 17+00

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SHEET	C-101
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- CONSTRUCTION NOTES:
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 - ② SEE SHEETS C-401 TO C-403 FOR CUTOFF WALL PROFILES.
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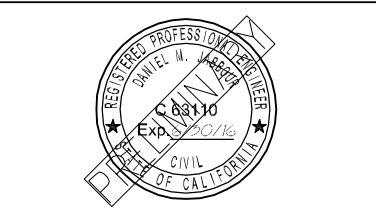


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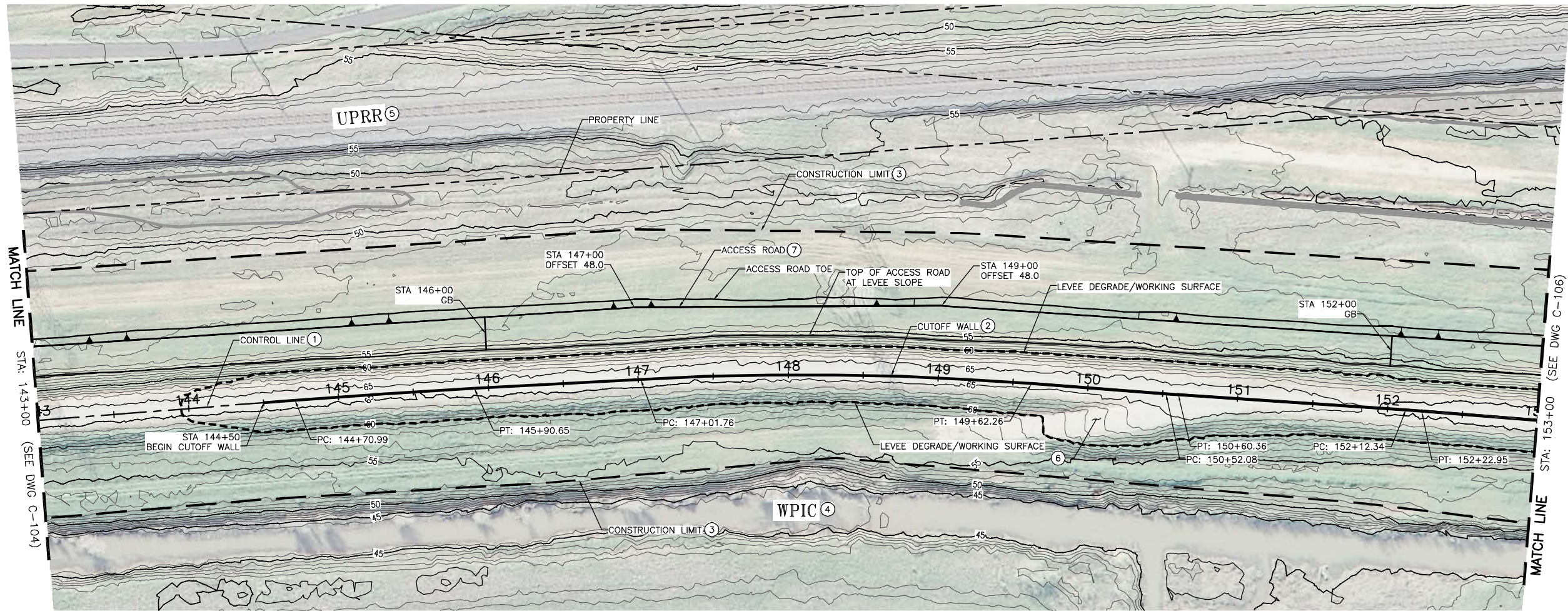
PROJECT MANAGER	K. BROWN
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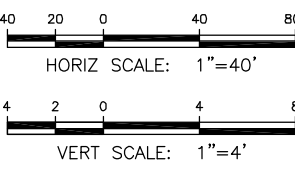
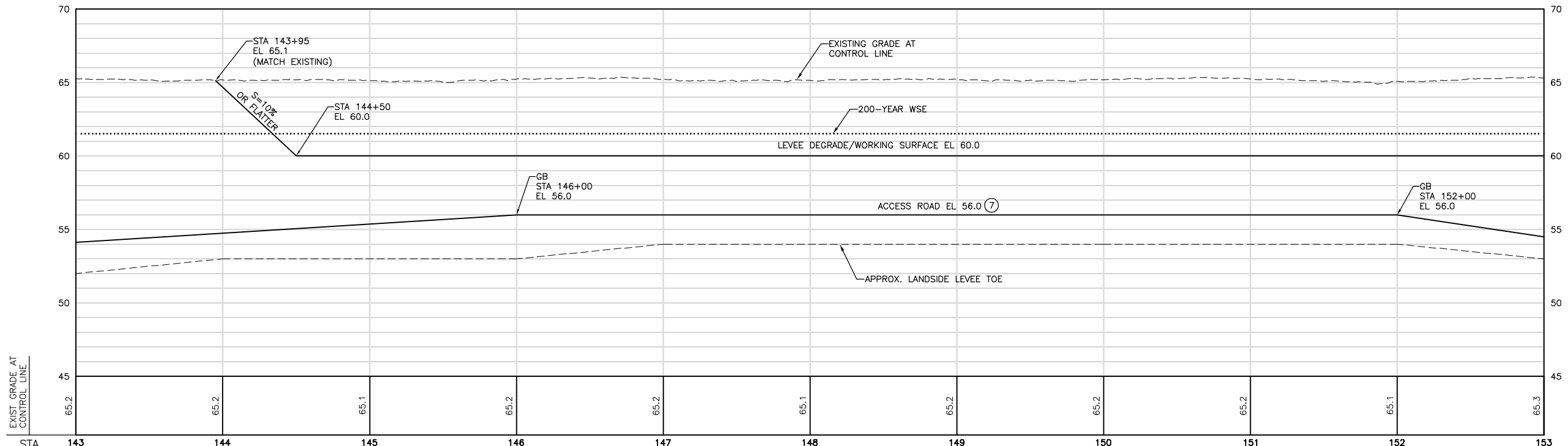
Three Rivers Levee Improvement Authority

TRLIA
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Sta 0+00 to 310+00

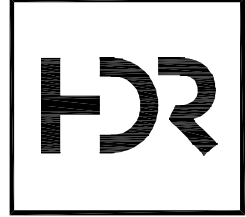

PLAN AND PROFILE STA 17+00 TO 27+00		
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- CONSTRUCTION NOTES:**
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 - ⑤ UPRR TO REMAIN. RAILROAD WILL BE IN OPERATION DURING CONSTRUCTION. CONTRACTOR TO PROTECT RAILROAD IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.
 - ⑥ REPLACE EXISTING RAMP IN KIND AND IN ACCORDANCE WITH THE SPECIFICATIONS.
 - ⑦ SEE TYPICAL DETAIL ON SHEET C-302.




65% DESIGN



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PROJECT MANAGER	K. BROWN
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TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159

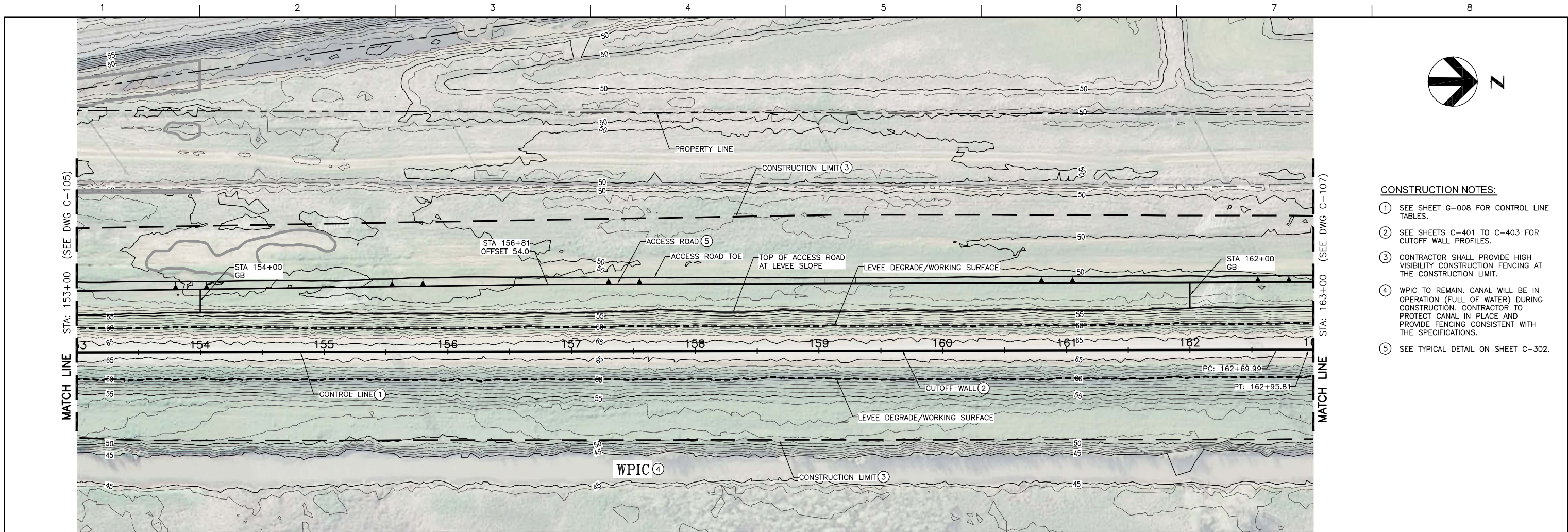


Three Rivers Levee Improvement Authority

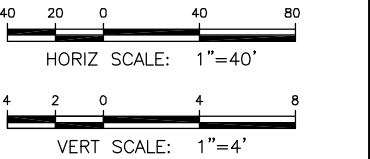
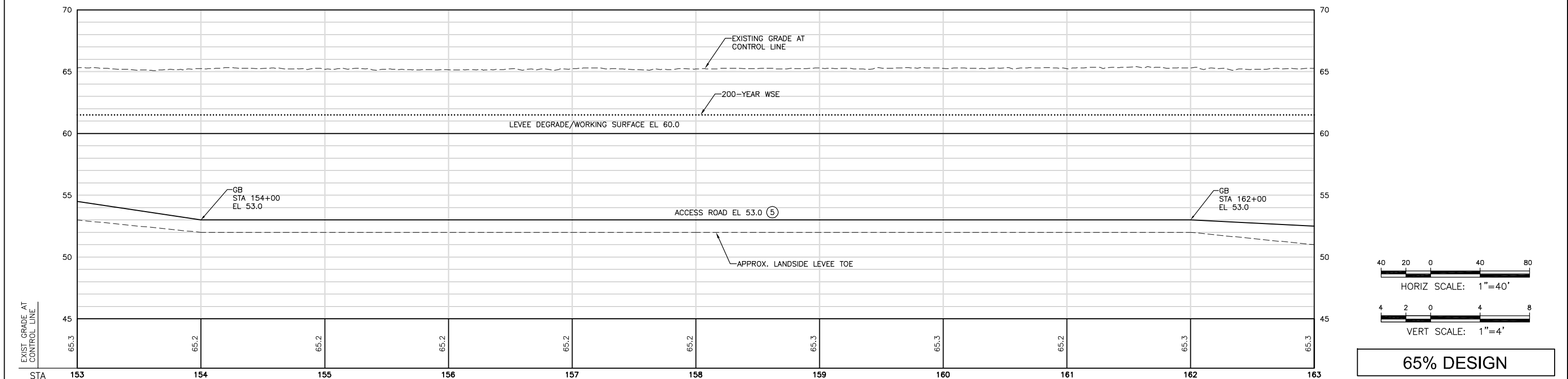
TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

PLAN AND PROFILE
STA 143+00 TO 153+00

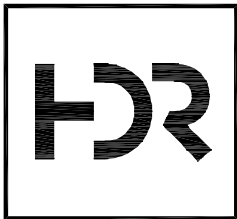
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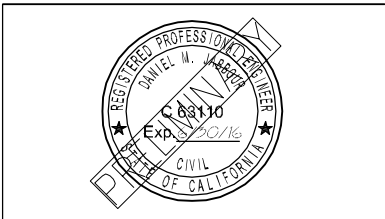


65% DESIGN



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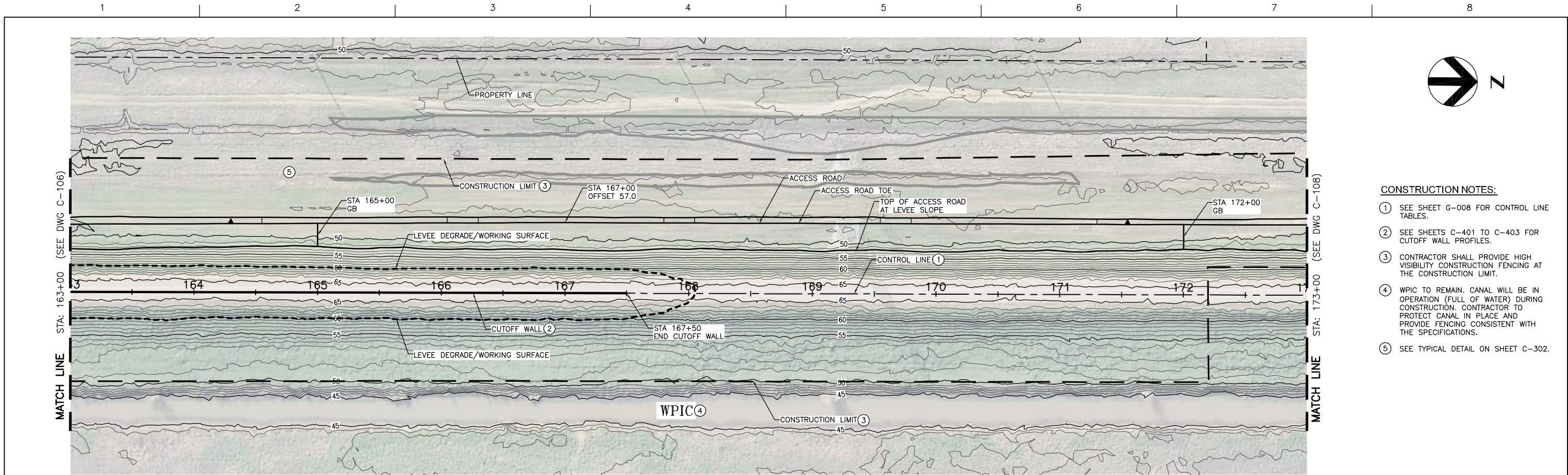
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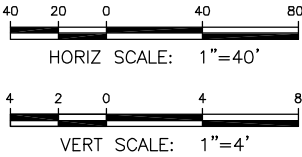
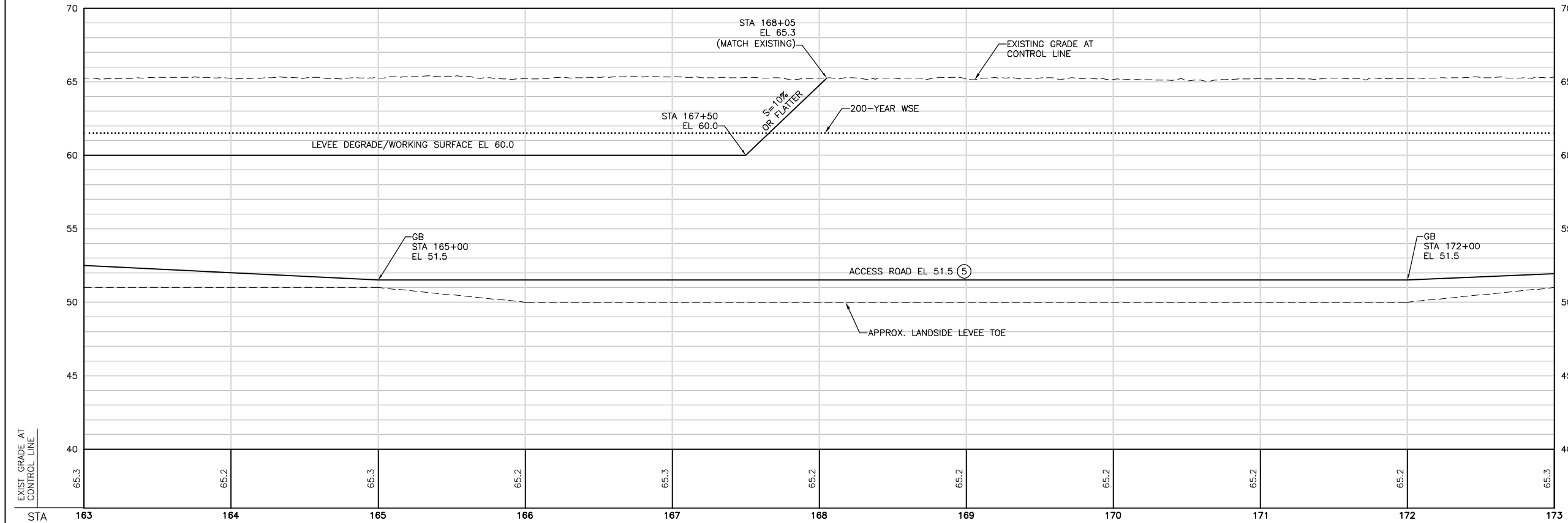
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Improvement Project
Sta 0+00 to 310+00

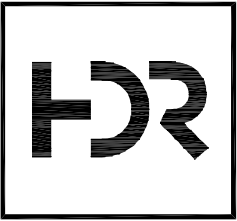
PLAN AND PROFILE STA 153+00 TO 163+00		
FILENAME	C-106.dwg	SHEET
SCALE	AS SHOWN	C-106



- CONSTRUCTION NOTES:**
- ① SEE SHEET G-008 FOR CONTROL LINE TABLES.
 - ② SEE SHEETS C-401 TO C-403 FOR CUTOFF WALL PROFILES.
 - ③ CONTRACTOR SHALL PROVIDE HIGH VISIBILITY CONSTRUCTION FENCING AT THE CONSTRUCTION LIMIT.
 - ④ WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL OF WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THE SPECIFICATIONS.
 - ⑤ SEE TYPICAL DETAIL ON SHEET C-302.

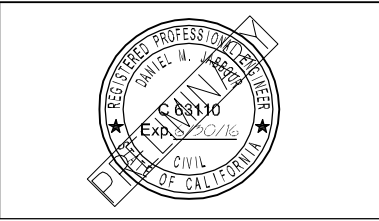


65% DESIGN



ISSUE	DATE	DESCRIPTION

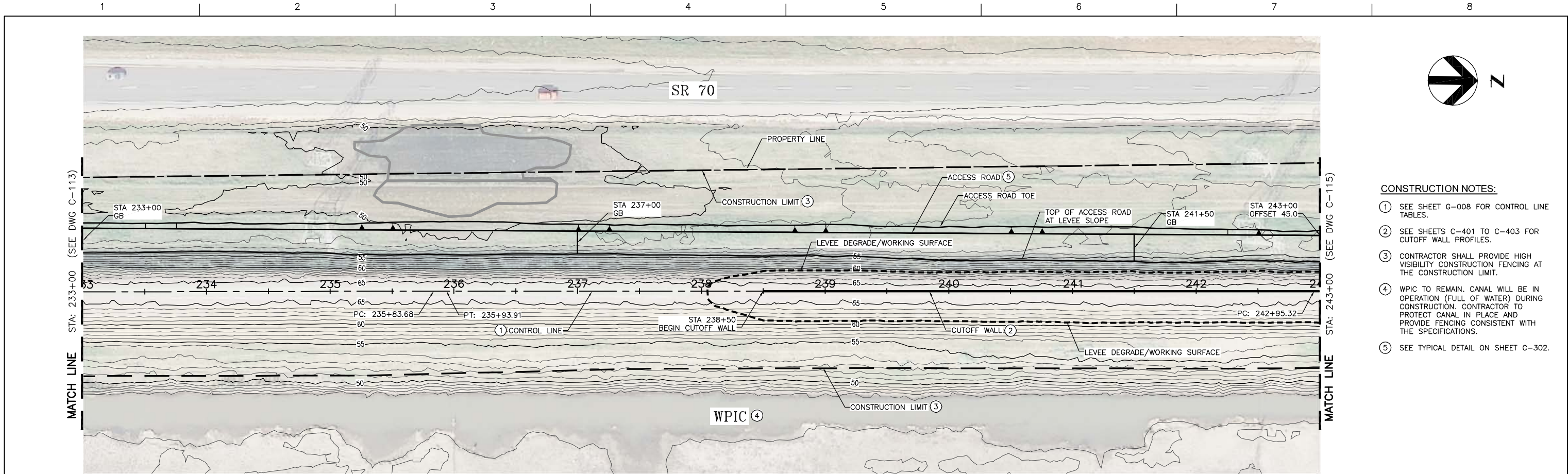
PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
DRAWN BY	H. SUAREZ
CHECKED BY	B. JOHNSON
TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159



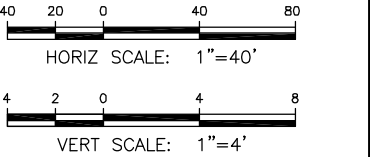
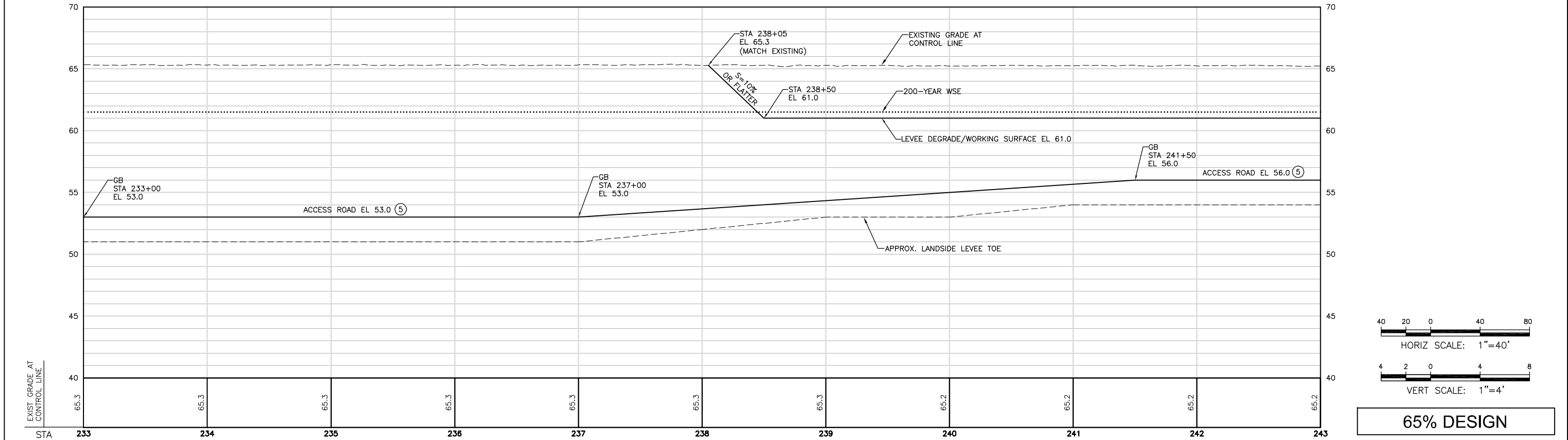
Three Rivers Levee Improvement Authority

TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00



PLAN AND PROFILE STA 163+00 TO 173+00		
FILENAME	C-107.dwg	SHEET
SCALE	AS SHOWN	C-107



- CONSTRUCTION NOTES:**
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65% DESIGN



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PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
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Three Rivers Levee Improvement Authority
TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

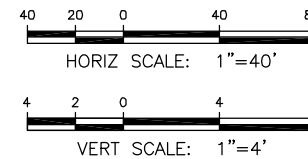
PLAN AND PROFILE
STA 233+00 TO 243+00

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SCALE	AS SHOWN	C-114

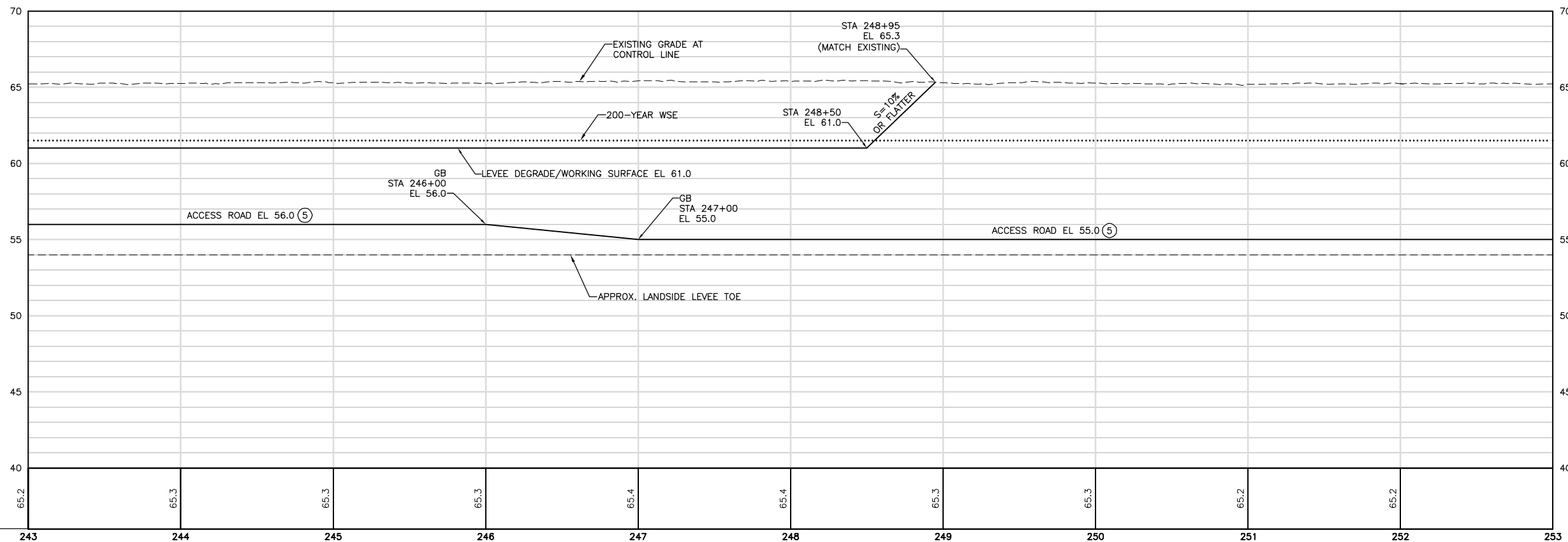
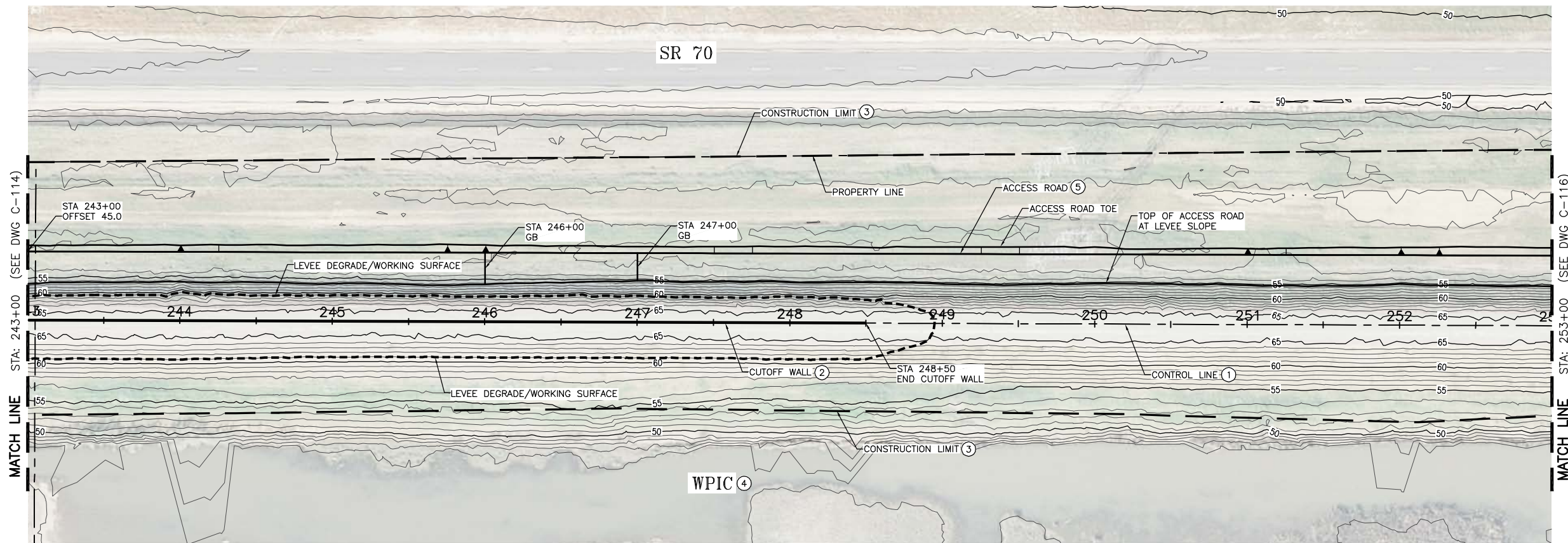


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Three Rivers Levee Improvement Authority

TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

PLAN AND PROFILE
STA 243+00 TO 253+00

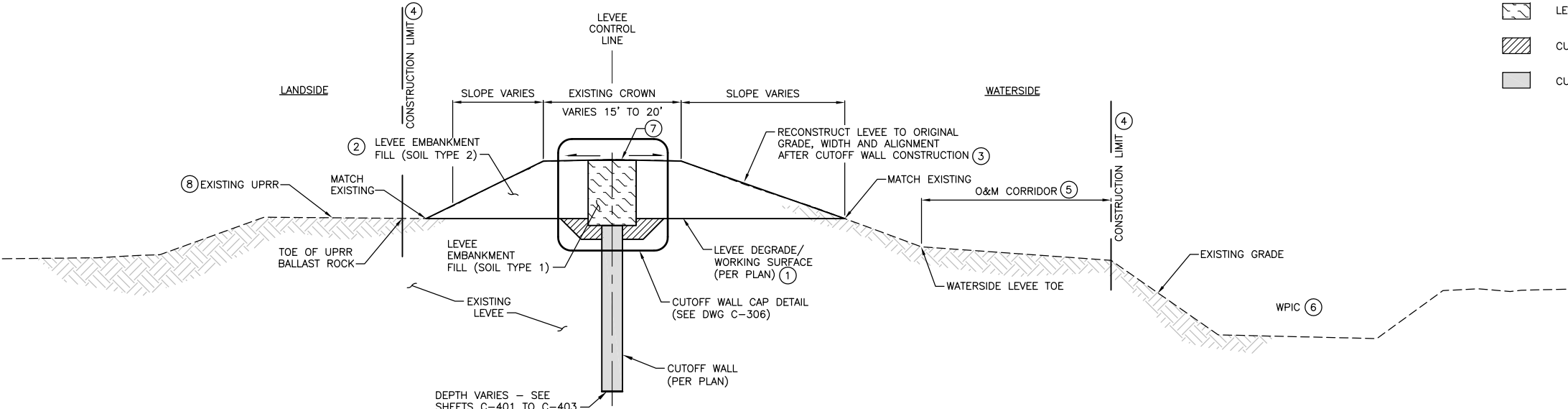
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SCALE	AS SHOWN	C-115

LEGEND:

- LEVEE EMBANKMENT FILL (SOIL TYPE 1)
- CUTOFF TRENCH (SOIL TYPE 1)
- CUTOFF WALL

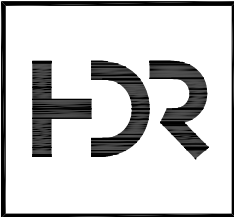
NOTES:

- SEE LEVEE DEGRADE DETAIL ON SHEET C-305.
- FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- FINISH GRADE LINES SHOWN DO NOT INCLUDE PLACEMENT OF TOPSOIL. TOPSOIL PLACEMENT SHALL BE PER PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMIT SHOWN ON THESE PLANS.
- CONSTRUCTION LIMIT SHOWN IS TYPICAL. VARIATIONS ARE SHOWN ON THE PLANS. SEE SHEET G-009 TO G-010 FOR CONSTRUCTION LIMIT LAYOUT.
- WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.
- CONTRACTOR SHALL SALVAGE EXISTING AGGREGATE BASE IN ACCORDANCE WITH THE SPECIFICATIONS. CROWN RESURFACING PER DETAIL ON SHEET C-305.
- UPRR TO REMAIN. RAILROAD WILL BE IN OPERATION DURING CONSTRUCTION. CONTRACTOR TO PROTECT RAILROAD IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.



1 TYPICAL CUTOFF WALL ALONG UPRR
NTS

65% DESIGN



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	K. BROWN
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Three Rivers Levee Improvement Authority

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TYPICAL LEVEE SECTIONS

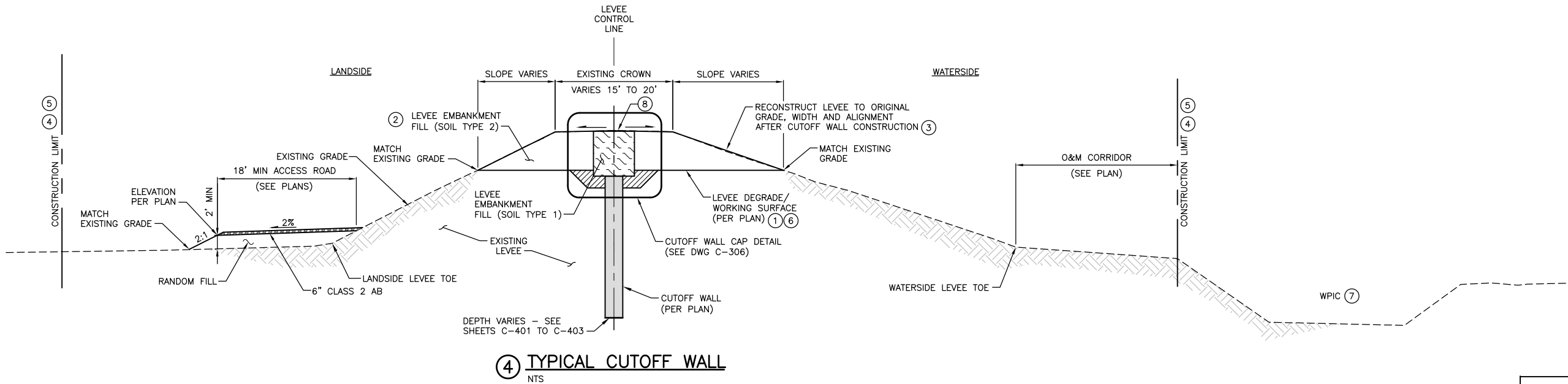
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SCALE	AS SHOWN	C-301

LEGEND:

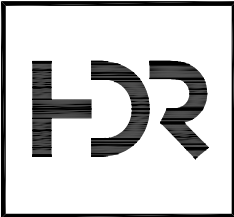
- LEVEE EMBANKMENT FILL (SOIL TYPE 1)
- CUTOFF TRENCH (SOIL TYPE 1)
- CUTOFF WALL

NOTES:

- SEE LEVEE DEGRADE DETAIL ON SHEET C-305.
- FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- FINISH GRADE LINES SHOWN DO NOT INCLUDE PLACEMENT OF TOPSOIL. TOPSOIL PLACEMENT SHALL BE PER PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMIT SHOWN ON THESE PLANS.
- CONSTRUCTION LIMIT SHOWN IS TYPICAL. VARIATIONS ARE SHOWN ON THE PLANS. SEE SHEET G-009 TO G-010 FOR CONSTRUCTION LIMIT LAYOUT.
- CONTRACTOR MAY ADJUST THE WORKING SURFACE ELEVATIONS INDICATED ON THE PLANS AS OUTLINED IN THE SPECIFICATIONS.
- WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.
- CONTRACTOR SHALL SALVAGE EXISTING AGGREGATE BASE IN ACCORDANCE WITH THE SPECIFICATIONS. CROWN RESURFACING PER DETAIL ON SHEET C-305.



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PROJECT NUMBER	242159



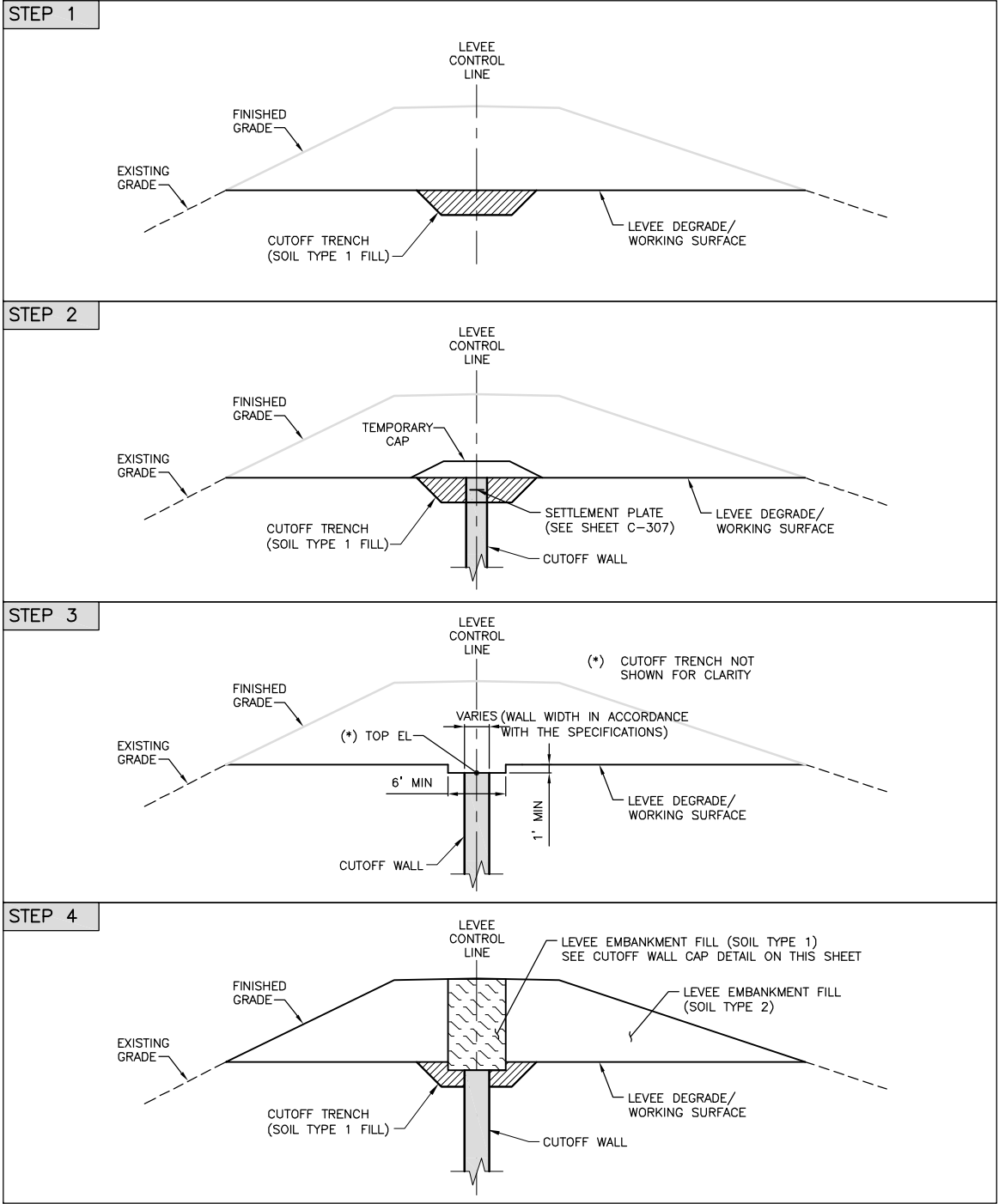
Three Rivers Levee Improvement Authority

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WPIC West Levee
Improvement Project
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TYPICAL LEVEE SECTIONS

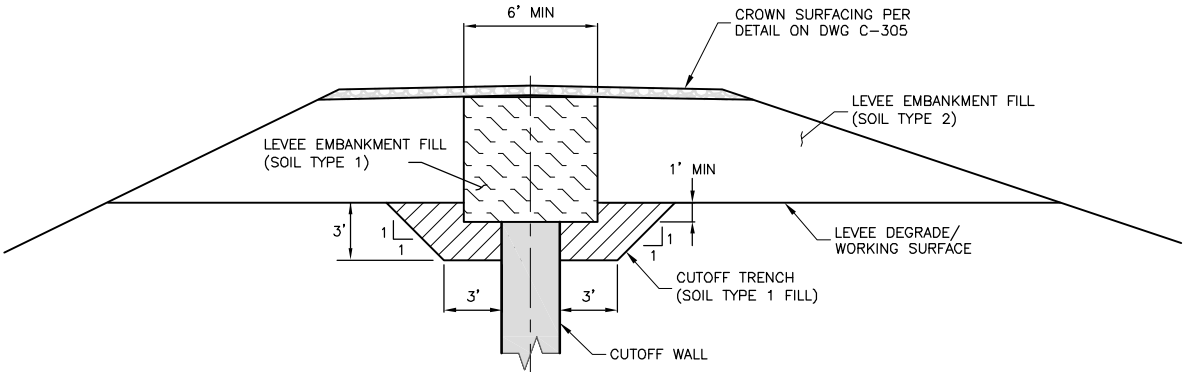
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SCALE	AS SHOWN	C-302

TYPICAL CUTOFF WALL CONSTRUCTION SEQUENCE

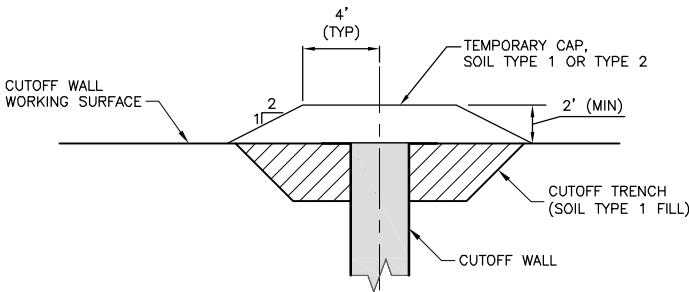


CONSTRUCTION SEQUENCE:

- STEP 1: DEGRADE LEVEE TO ESTABLISH WORKING SURFACE THEN EXCAVATE CUTOFF TRENCH AND FILL WITH TYPE 1 SOIL.
- STEP 2: CONSTRUCT CUTOFF WALL.
- o INSTALL SETTLEMENT PLATES AS INDICATED IN THE PROJECT SPECIFICATIONS.
 - o PLACE TEMPORARY CAP.
 - o MONITOR SETTLEMENT PLATE PER THE SPECIFICATIONS.
- STEP 3: AFTER APPROVAL BY THE AGENCY, REMOVE TEMPORARY CAP AND EXCAVATE CUTOFF WALL TO A MINIMUM DEPTH OF 1.0 FT BELOW WORKING SURFACE.
- o REMOVE SETTLEMENT PLATE.
 - o CONFIRM THAT EXCAVATION EXTENDS INTO ACCEPTABLE CUTOFF WALL MATERIAL AS DETERMINED BY THE ENGINEER.
 - o PLACE SOIL TYPE 1 FILL MATERIAL IN THE EXCAVATION IN ACCORDANCE WITH THE SPECIFICATIONS.
- STEP 4: RECONSTRUCT LEVEE EMBANKMENT IN ACCORDANCE WITH SECTION 31 00 00 OF THE PROJECT SPECIFICATIONS.



CUTOFF TRENCH AND CUTOFF WALL CAP DETAIL
NTS



TEMPORARY CAP DETAIL
NTS

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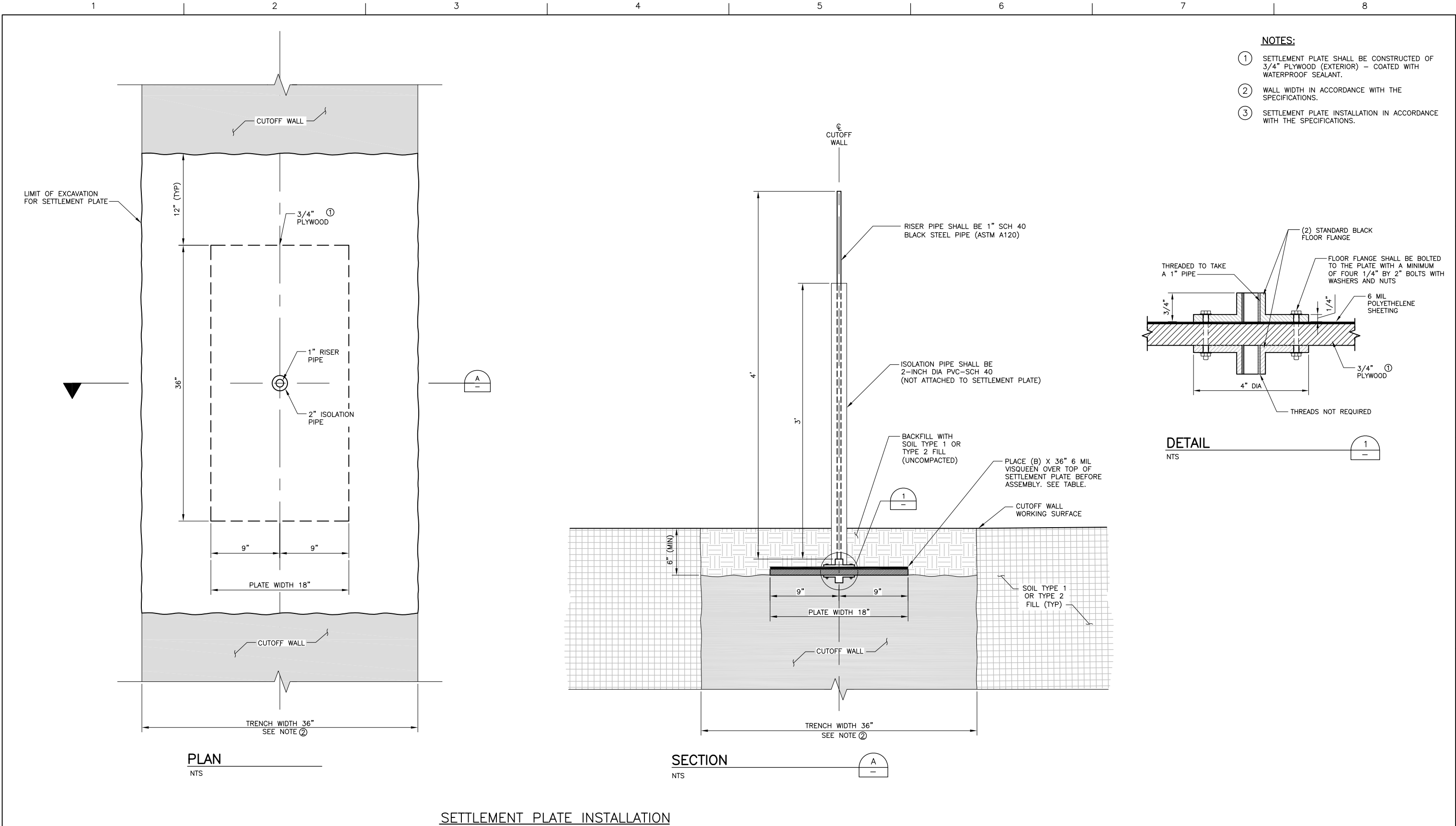


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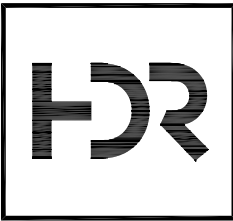

CUTOFF WALL DETAILS

FILENAME	C-306.dwg	SHEET
SCALE	AS SHOWN	C-306




SETTLEMENT PLATE INSTALLATION

65% DESIGN



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	K. BROWN
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Three Rivers Levee Improvement Authority

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CUTOFF WALL DETAILS		SHEET
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SCALE	AS SHOWN	

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2

3

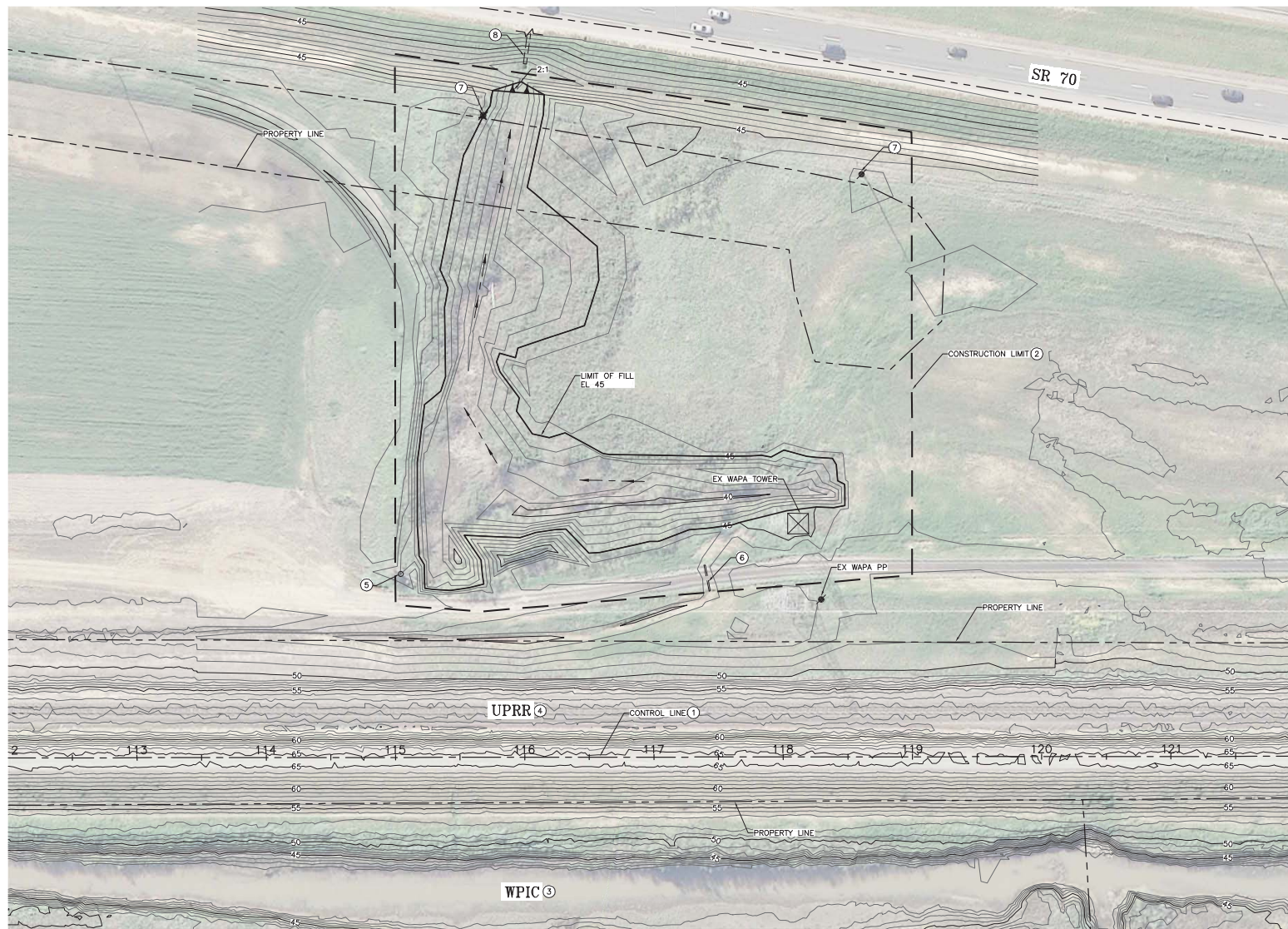
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5

6

7

8



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- ④ UPRR TO REMAIN. RAILROAD WILL BE IN OPERATION DURING CONSTRUCTION. CONTRACTOR TO PROTECT RAILROAD IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.
- ⑤ EXISTING 30" STAND PIPE TO REMAIN. CONTRACTOR TO REPLACE IN KIND IF DAMAGED DURING CONSTRUCTION.
- ⑥ EXISTING 12" CMP. CONTRACTOR TO PROTECT IN PLACE AND REPLACE IN KIND IF DAMAGED DURING CONSTRUCTION.
- ⑦ EXISTING POWER POLE TO REMAIN.
- ⑧ EXISTING 30" RCP. CONTRACTOR TO PROTECT IN PLACE AND REPLACE IN KIND IF DAMAGED DURING CONSTRUCTION.

40 20 0 40 80
HORIZ SCALE: 1"=40'

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Three Rivers Levee Improvement Authority

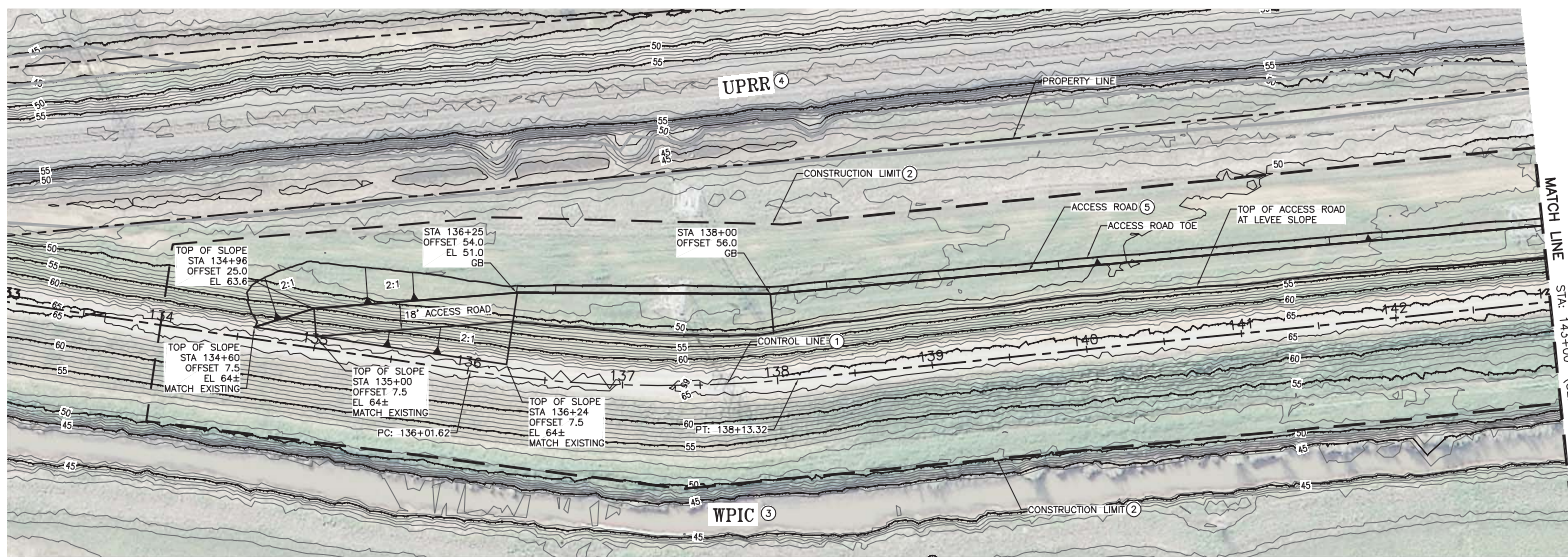
TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

PLAN

STA 112+00 TO 122+00

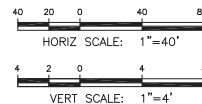
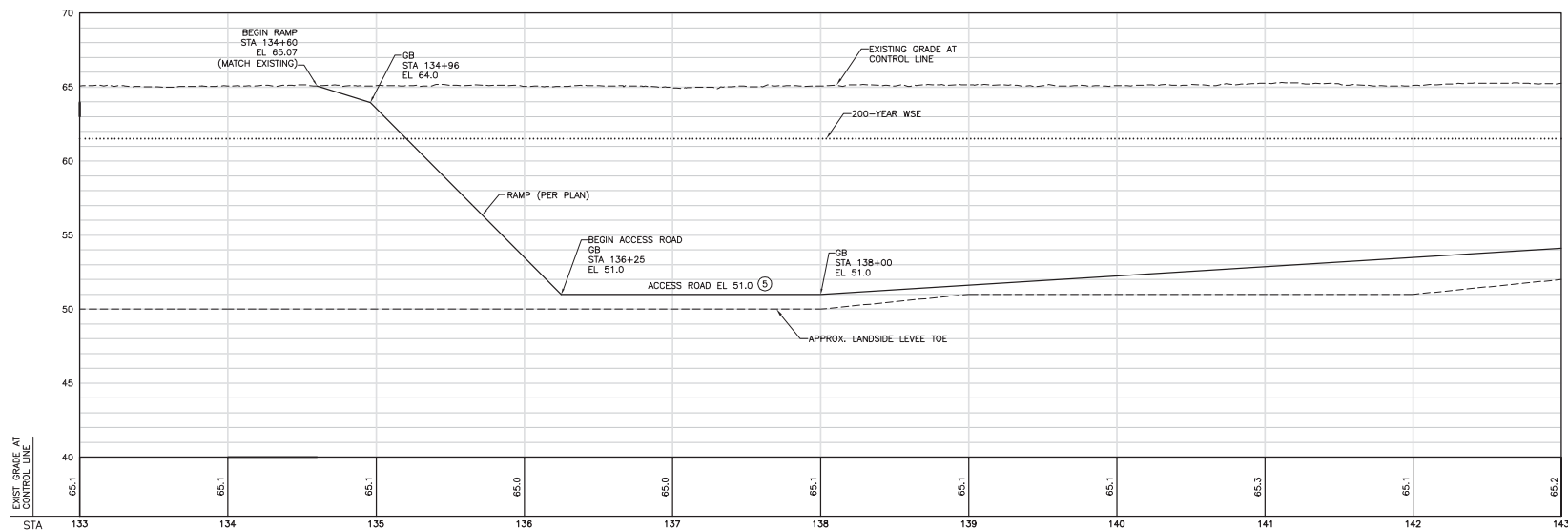
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SCALE AS SHOWN

SHEET
C-103



CONSTRUCTION NOTES:

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65% DESIGN



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TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159



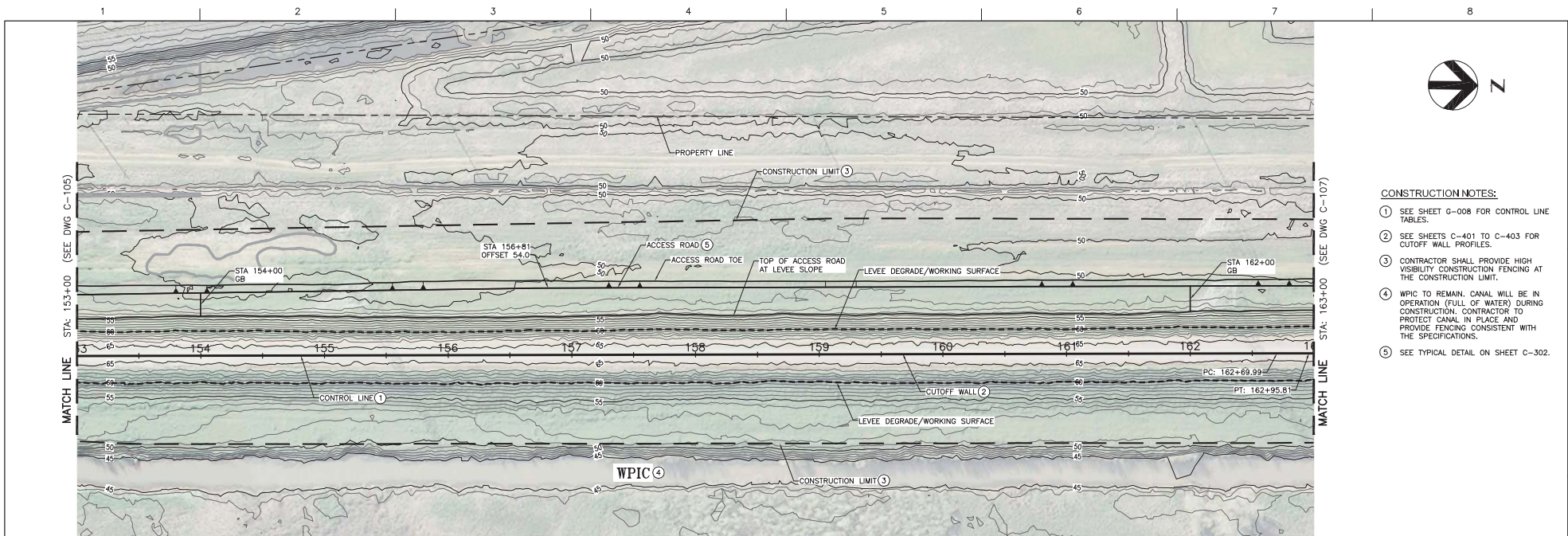
Three Rivers Levee Improvement Authority
 TRIA
 WPIC West Levee
 Improvement Project
 Sta 0+00 to 310+00

PLAN AND PROFILE
 STA 133+00 TO 143+00

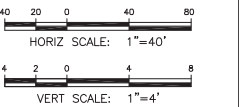
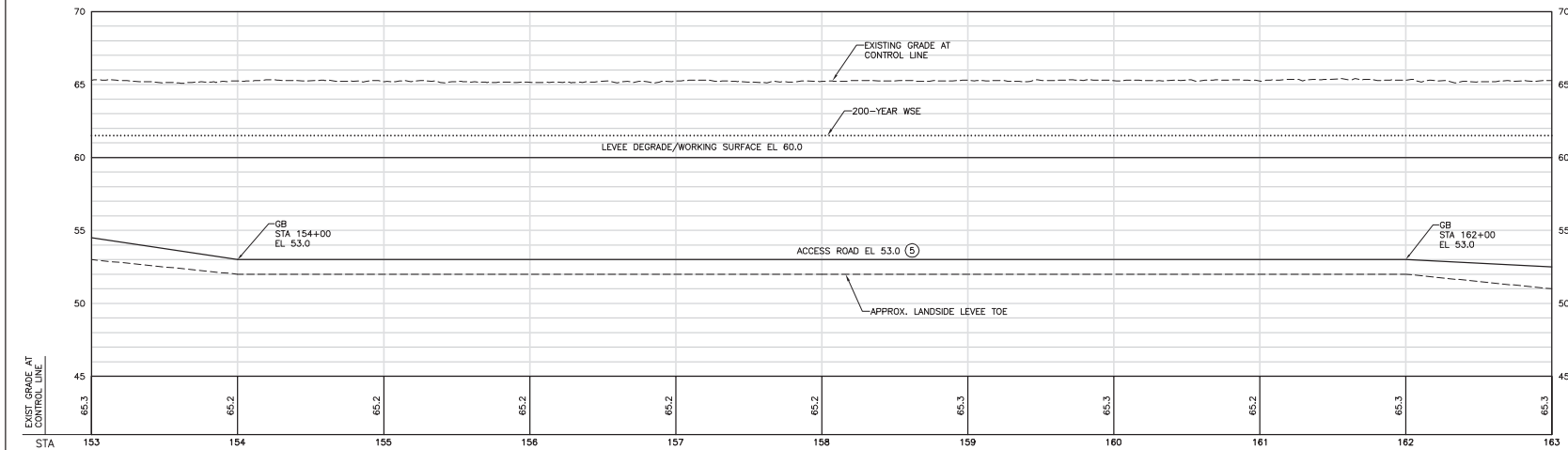
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SCALE	AS SHOWN

SHEET	C-104
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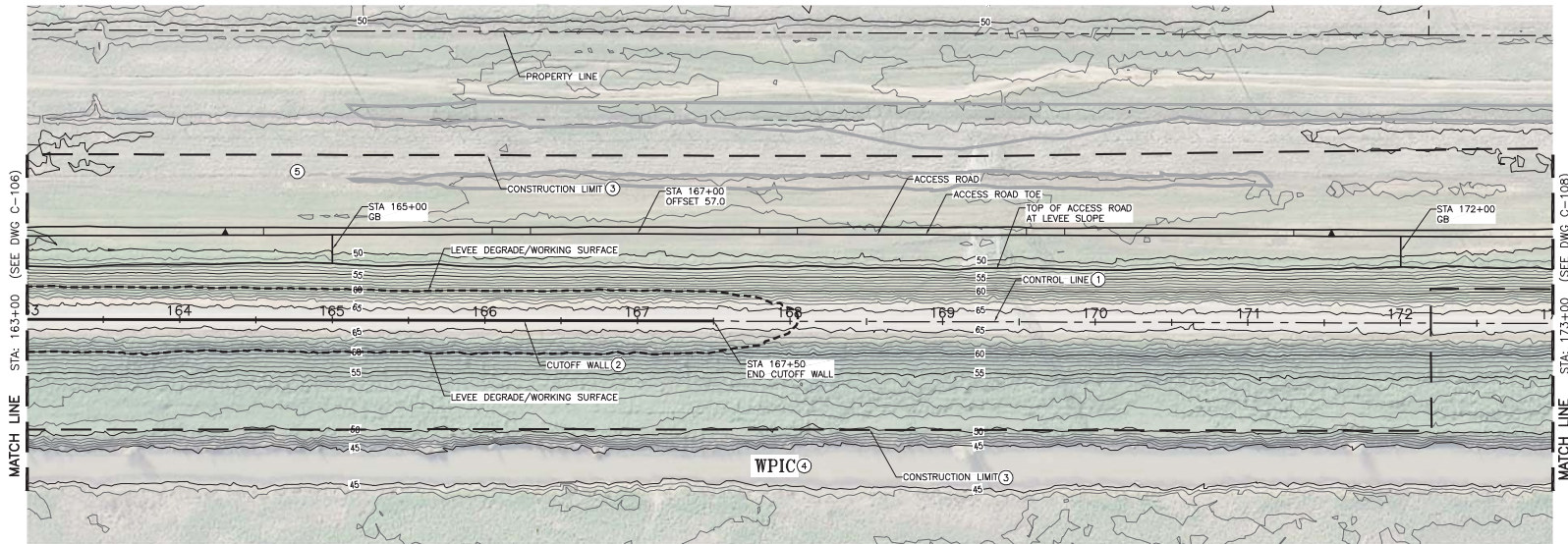


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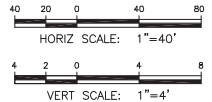
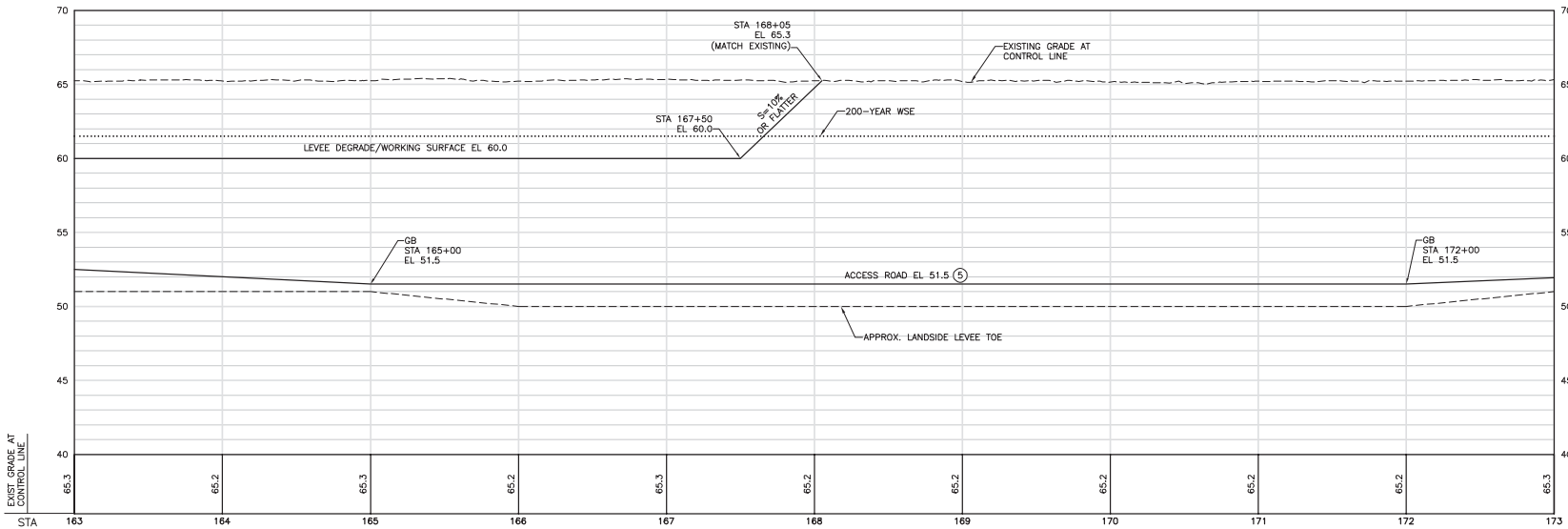


65% DESIGN

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<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ISSUE</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	ISSUE	DATE	DESCRIPTION										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>FILENAME</td> <td>C-106.dwg</td> <td>SHEET</td> <td rowspan="2">C-106</td> </tr> <tr> <td>SCALE</td> <td>AS SHOWN</td> <td> </td> </tr> </table>	FILENAME	C-106.dwg	SHEET	C-106	SCALE	AS SHOWN	
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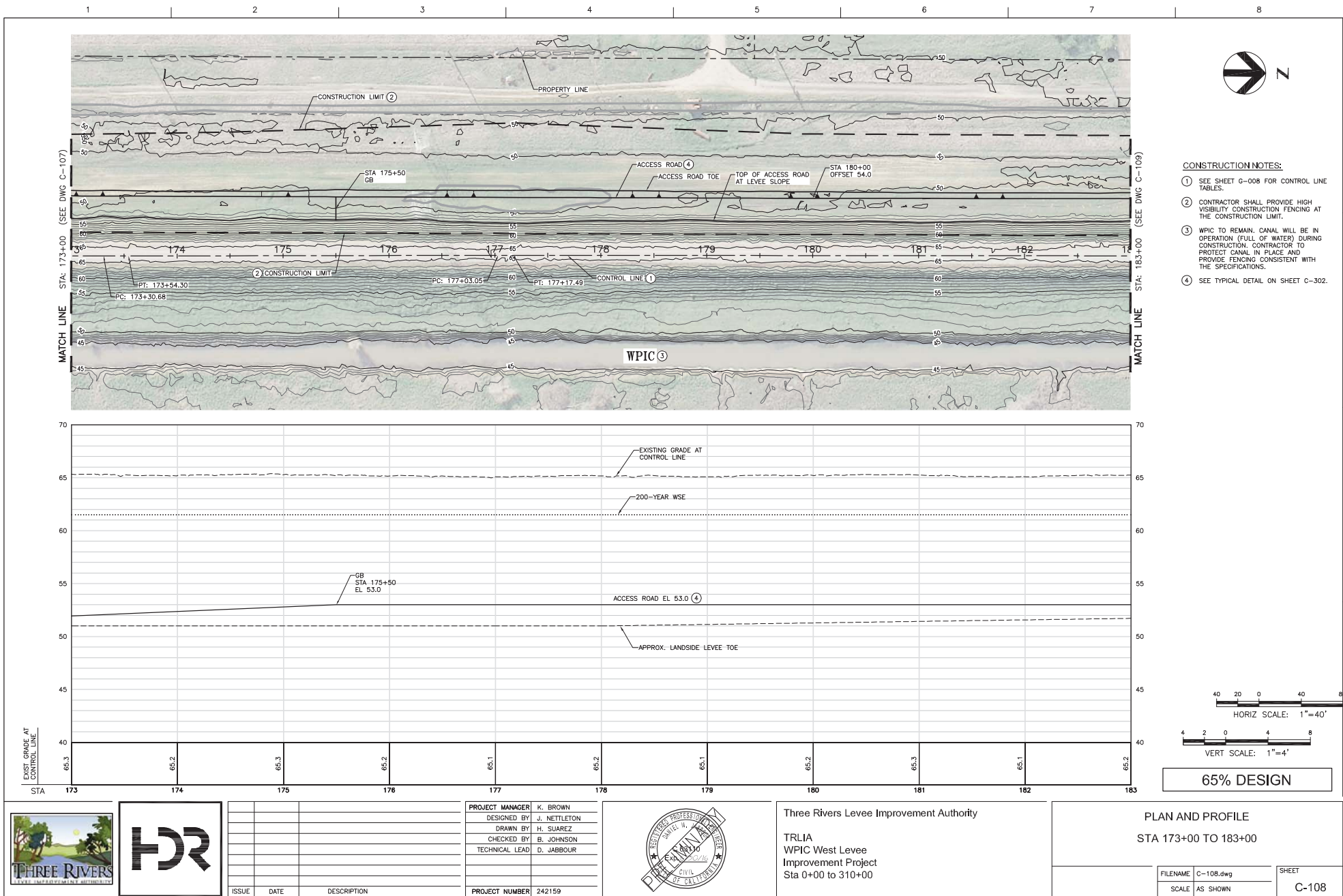
PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
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CHECKED BY	B. JOHNSON
TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159

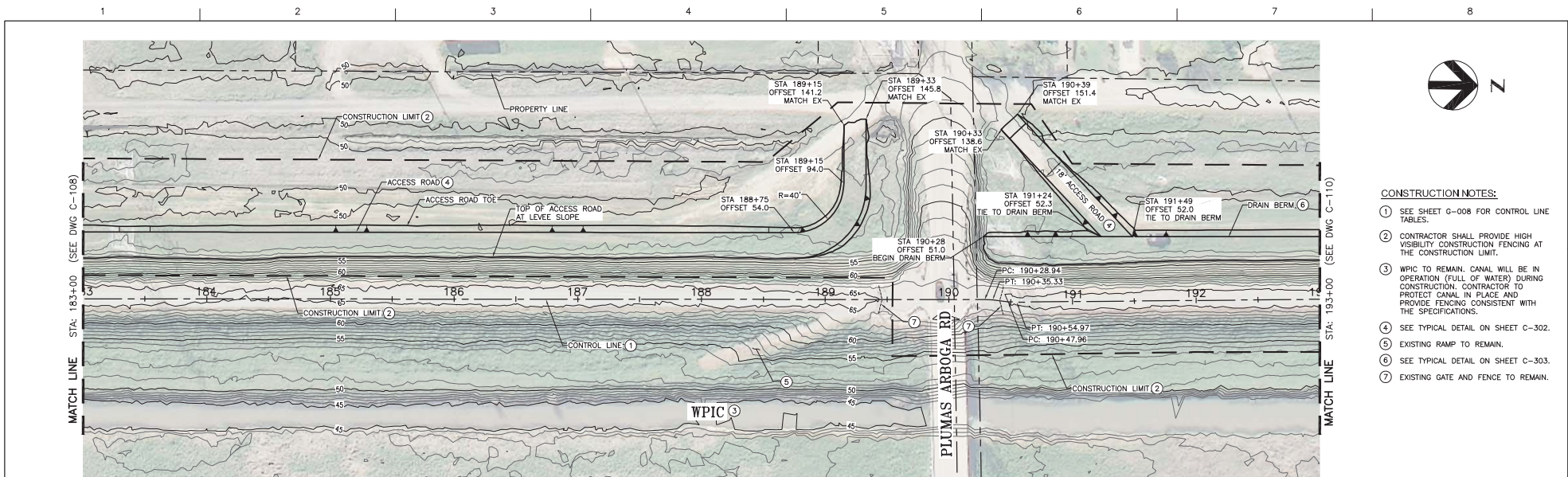


Three Rivers Levee Improvement Authority
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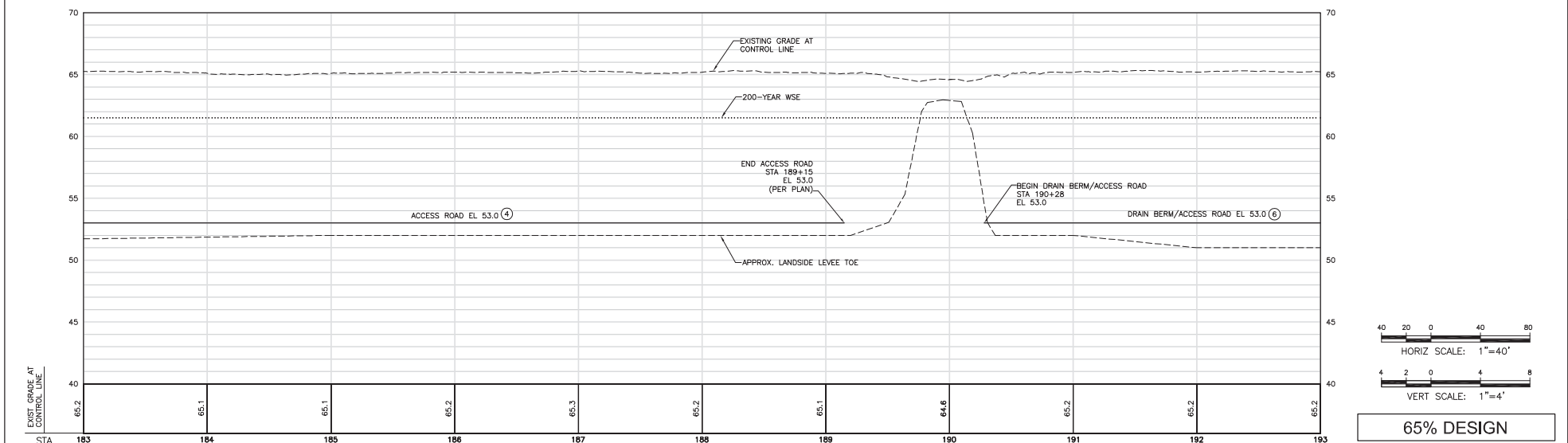
PLAN AND PROFILE
STA 163+00 TO 173+00

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SCALE	AS SHOWN		



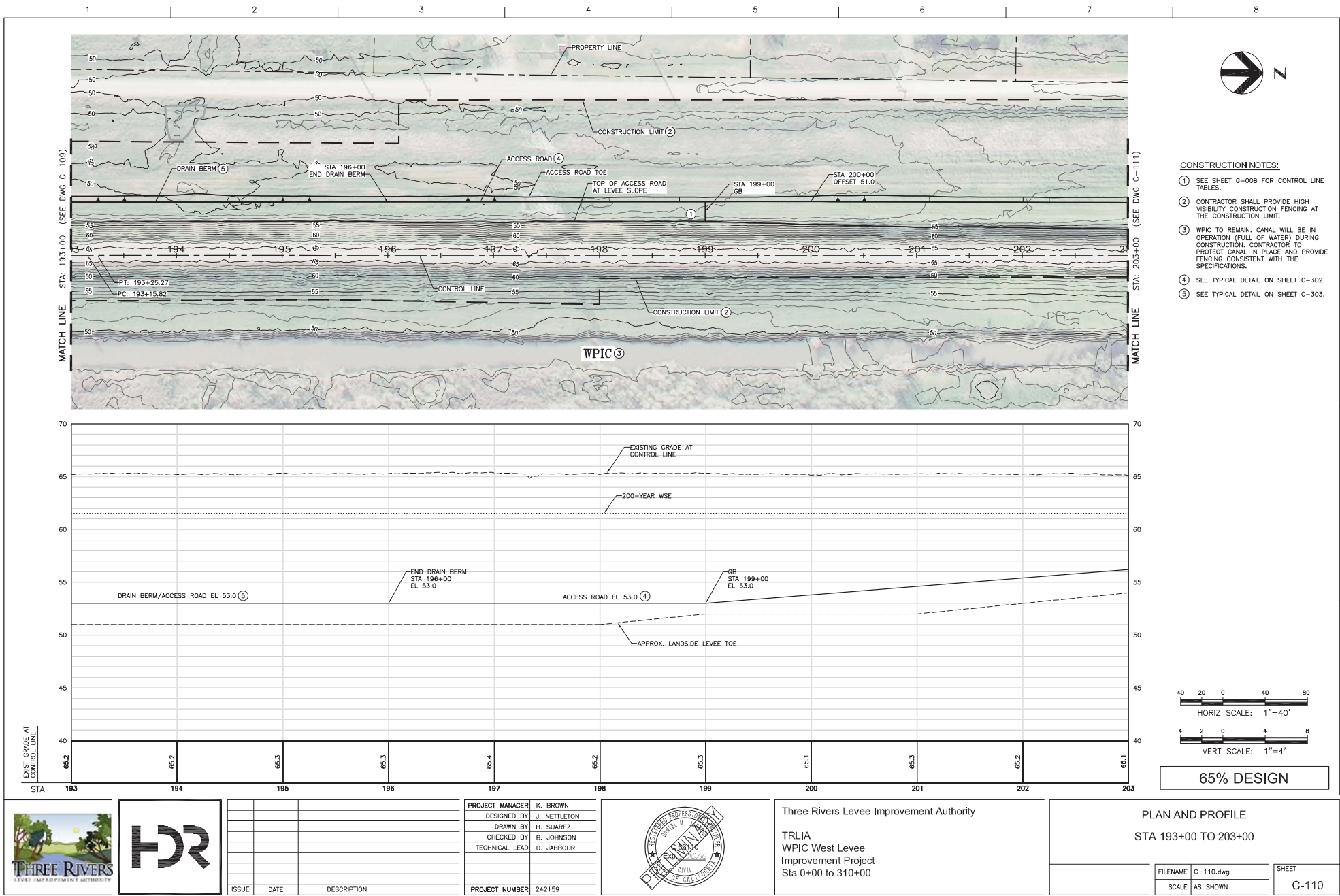


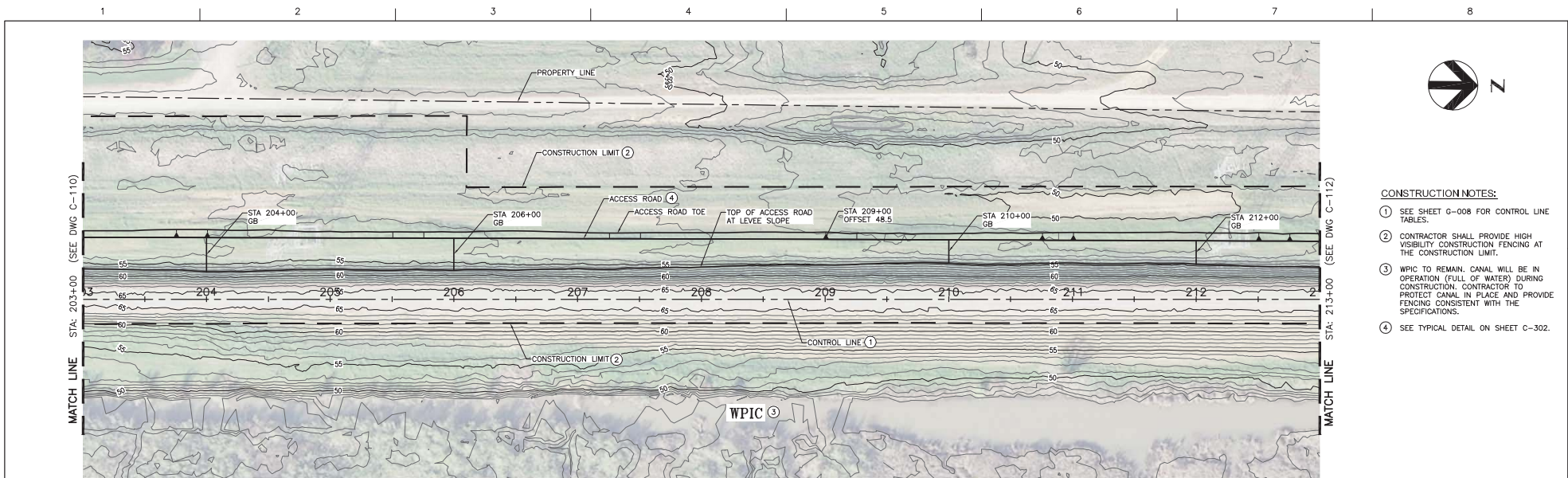
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 - SEE TYPICAL DETAIL ON SHEET C-302.
 - EXISTING RAMP TO REMAIN.
 - SEE TYPICAL DETAIL ON SHEET C-303.
 - EXISTING GATE AND FENCE TO REMAIN.



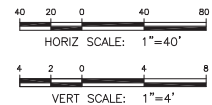
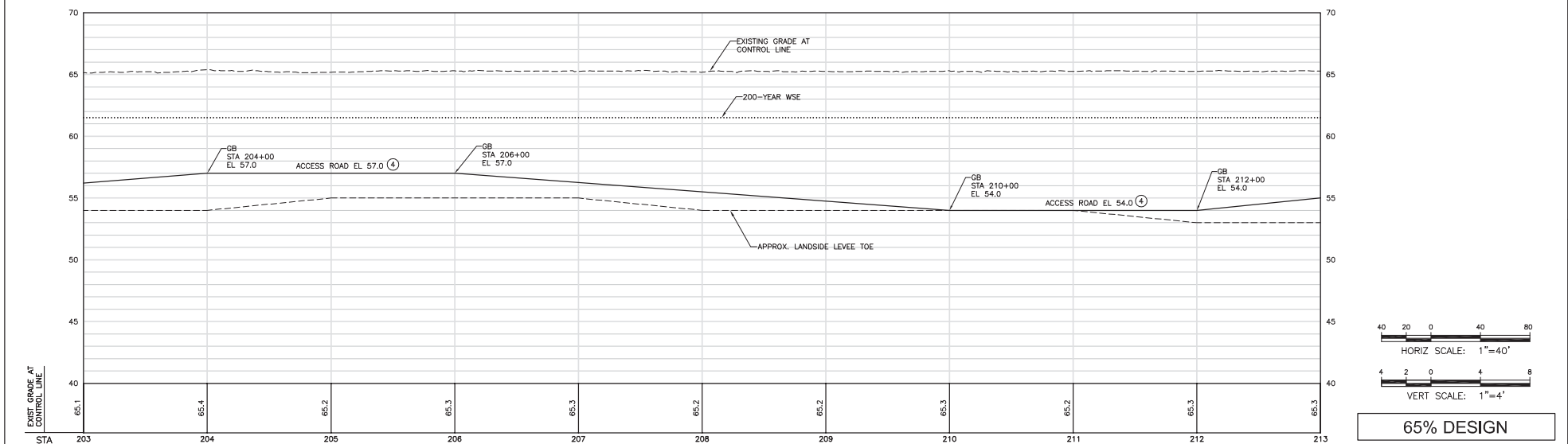
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		PROJECT MANAGER: K. BROWN DESIGNED BY: J. NETTLETON DRAWN BY: H. SUAREZ CHECKED BY: B. JOHNSON TECHNICAL LEAD: D. JABBOUR		Three Rivers Levee Improvement Authority TRLIA WPIC West Levee Improvement Project Sta 0+00 to 310+00	PLAN AND PROFILE STA 183+00 TO 193+00	
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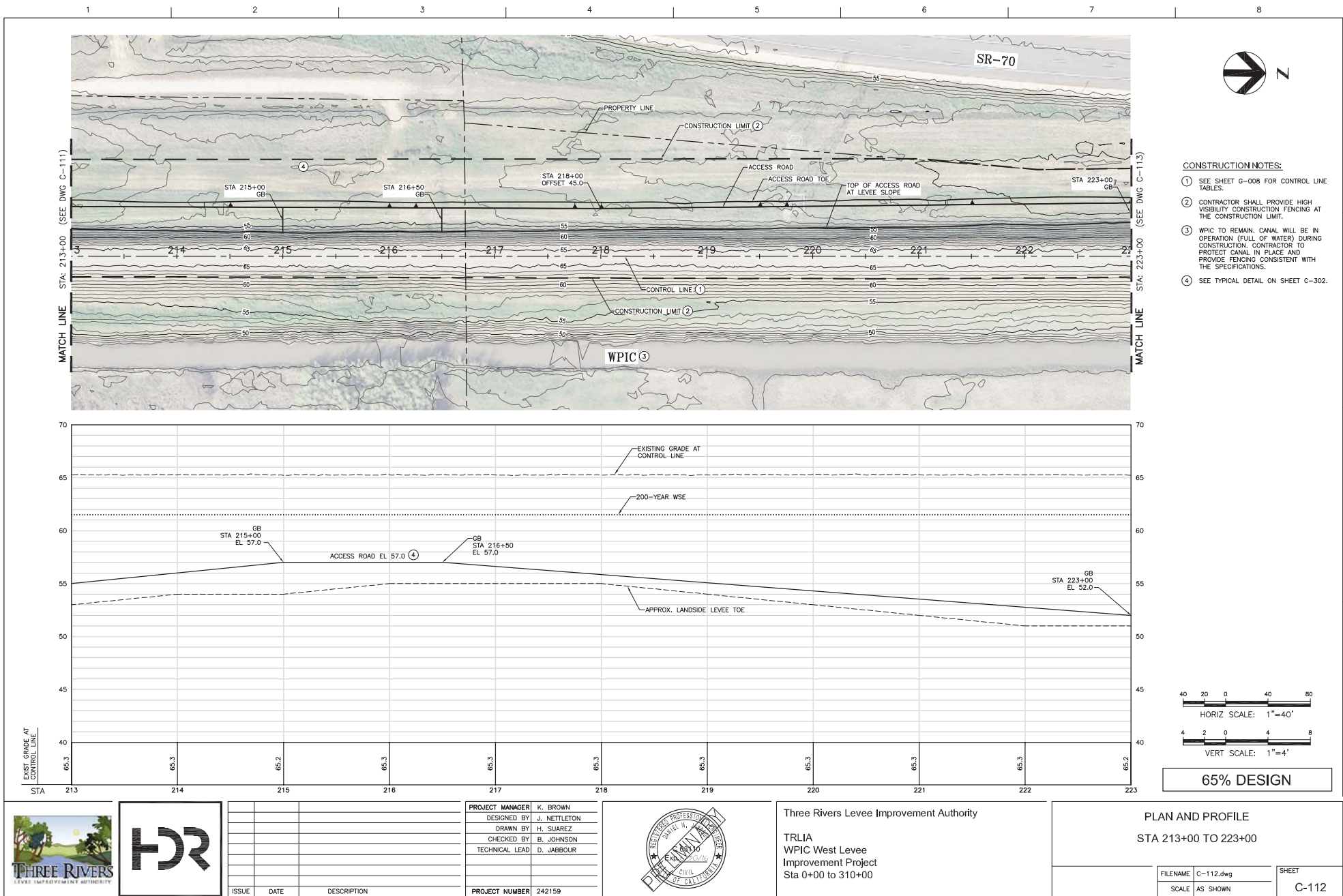


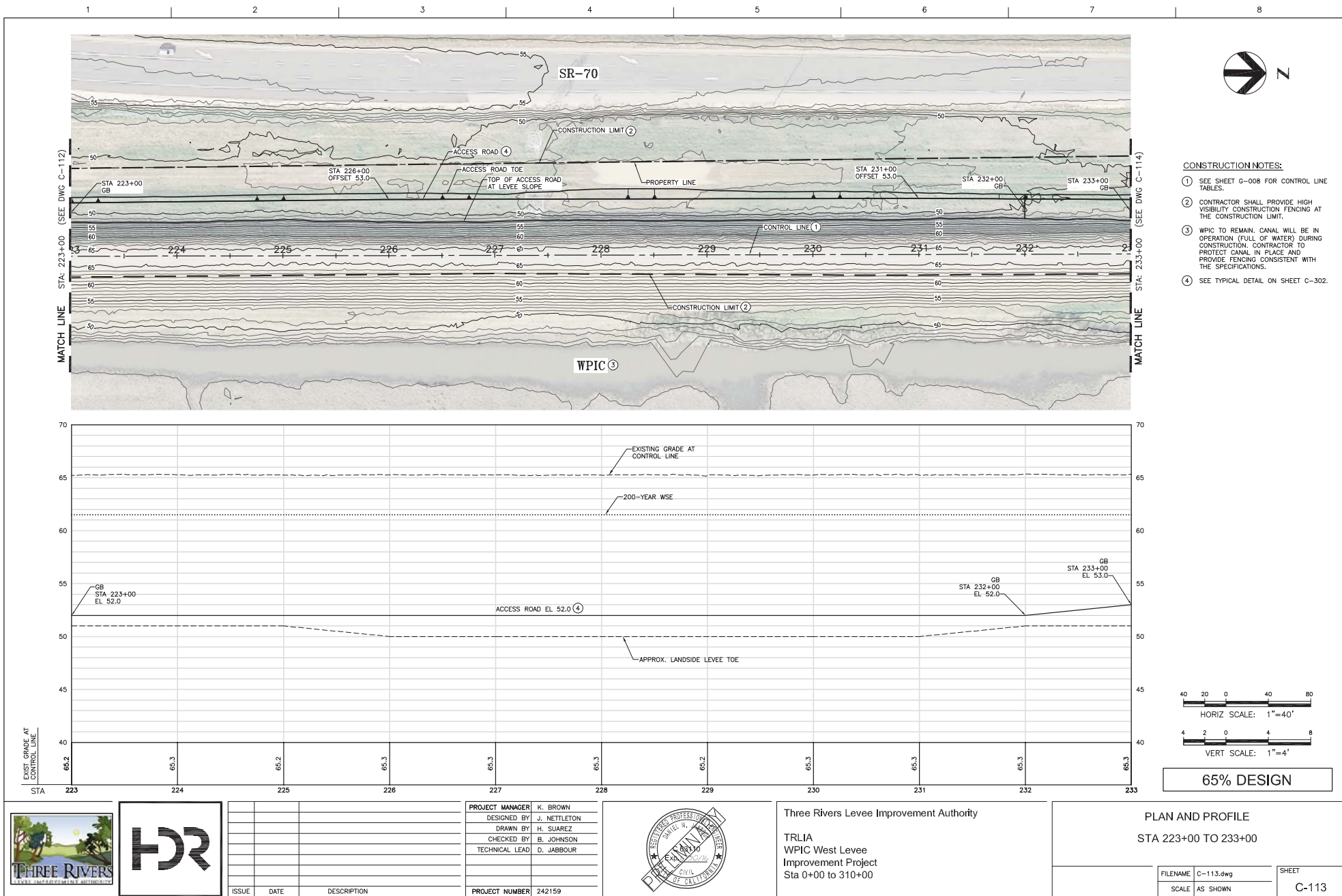
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 - WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL OF WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THE SPECIFICATIONS.
 - SEE TYPICAL DETAIL ON SHEET C-302.



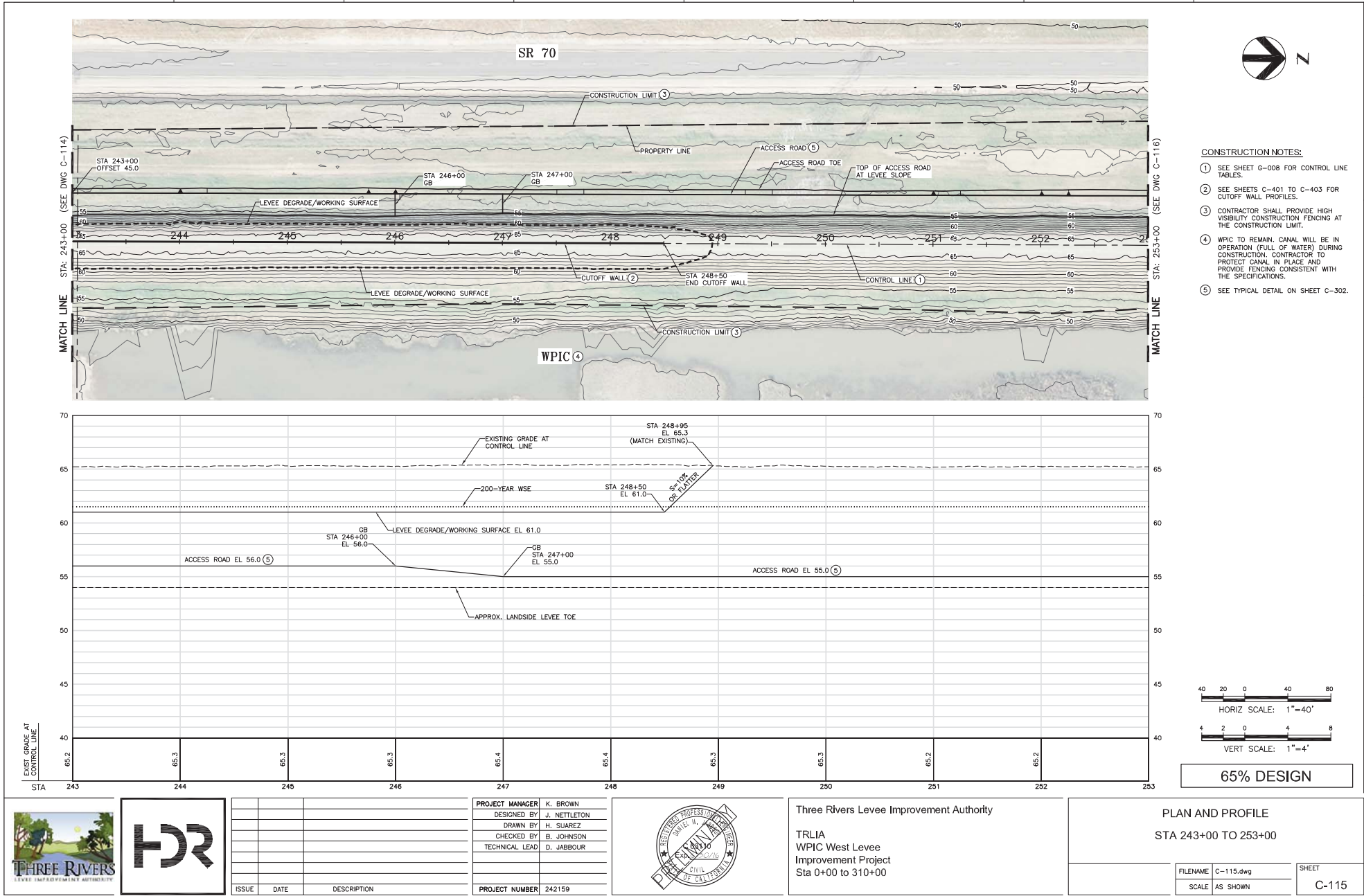
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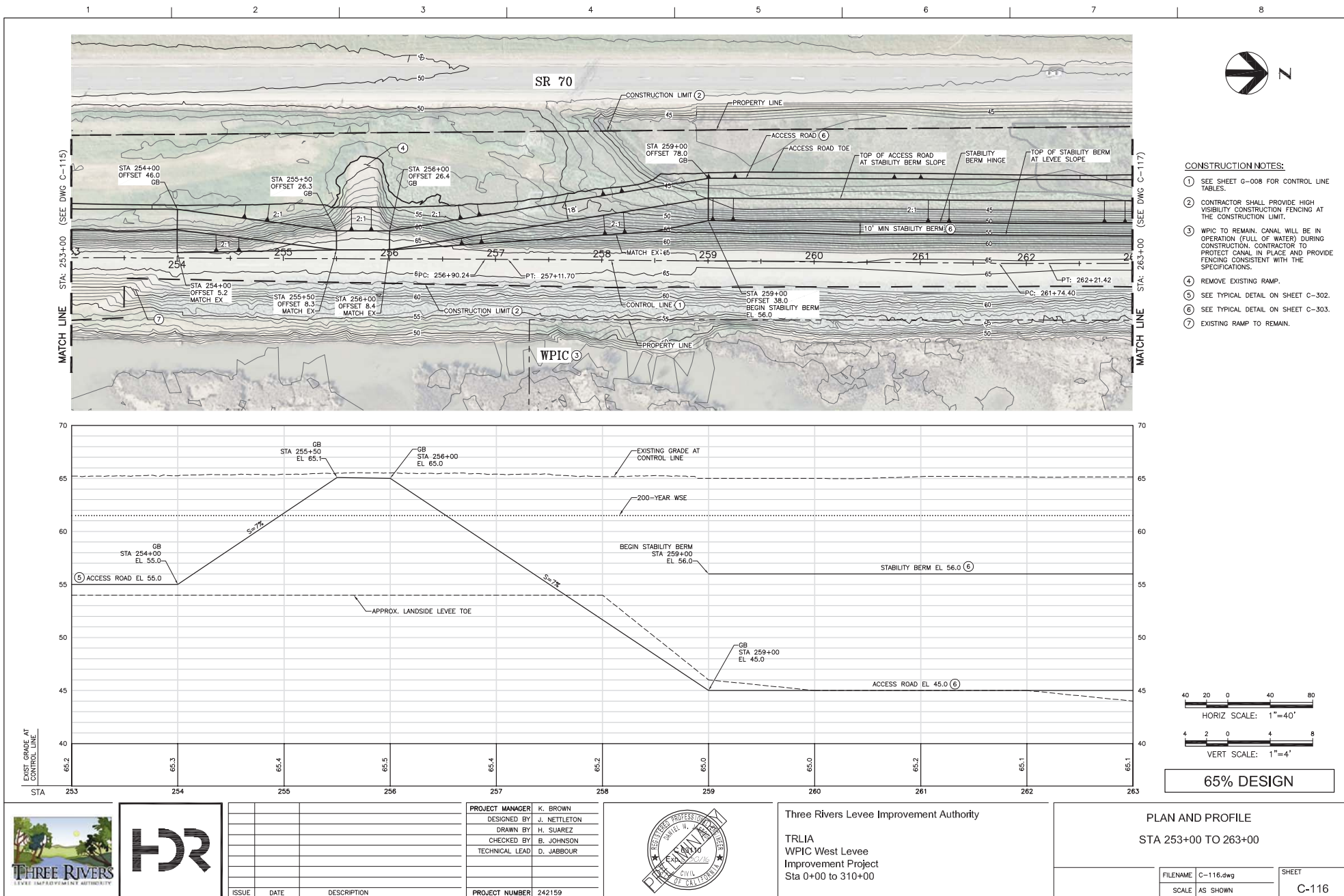
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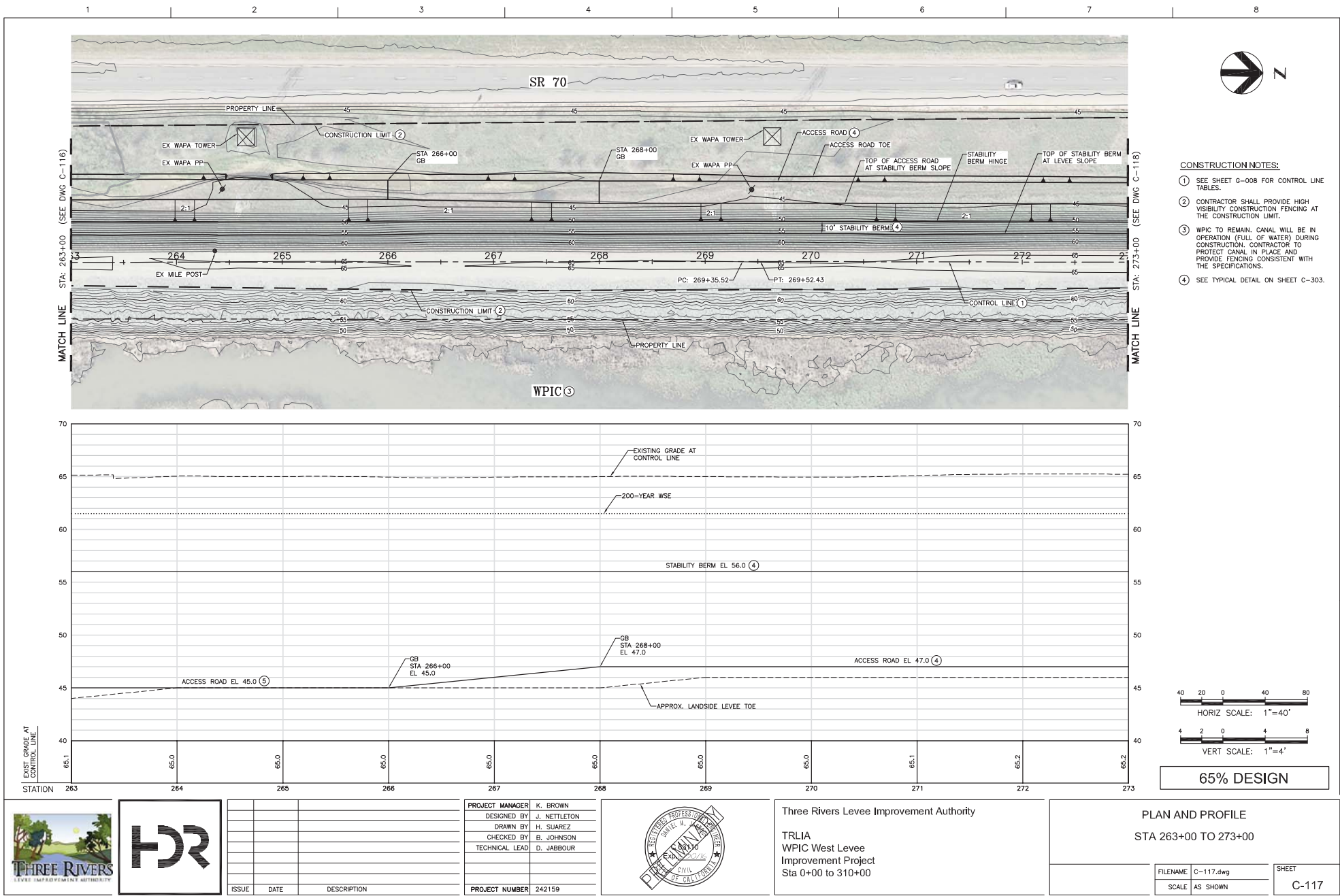


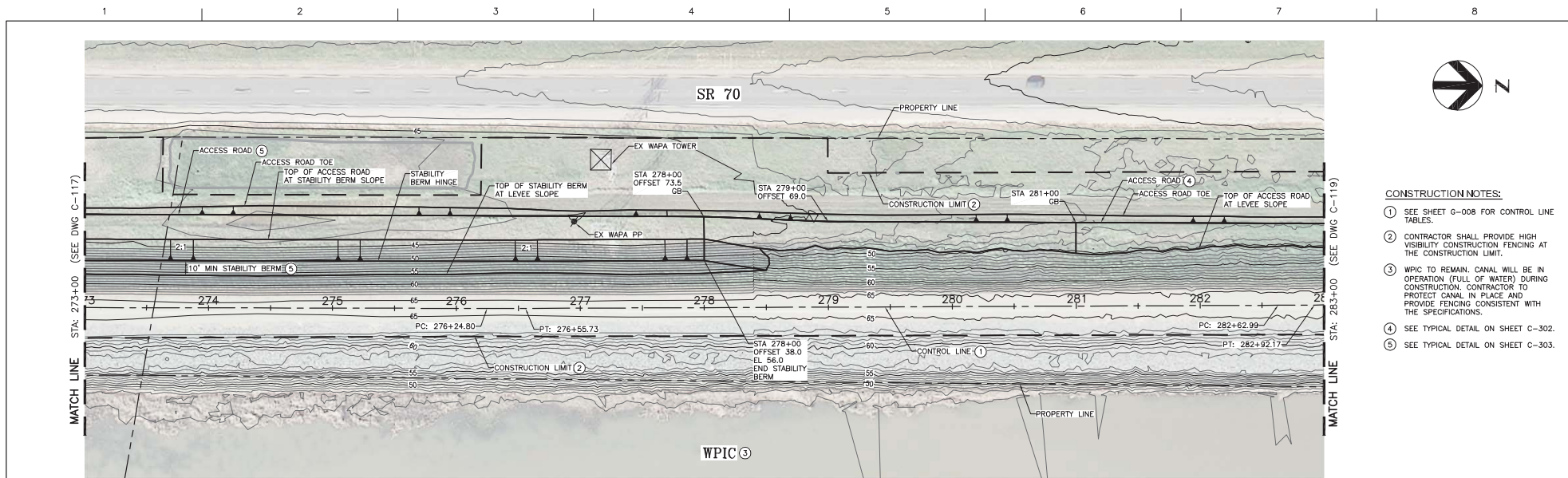




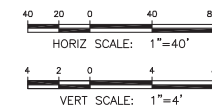
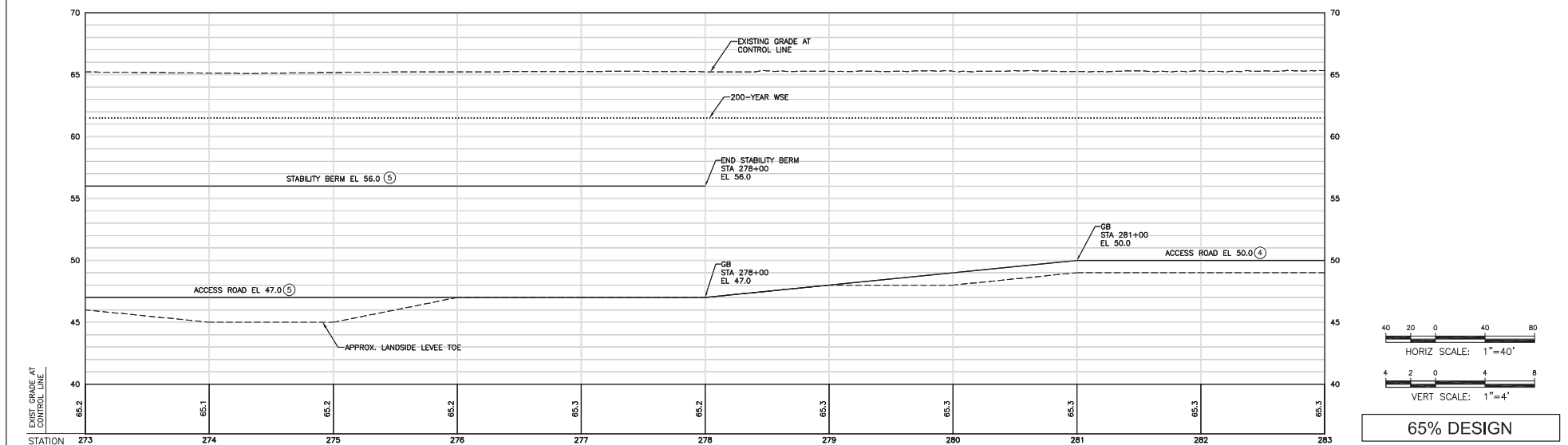




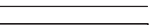



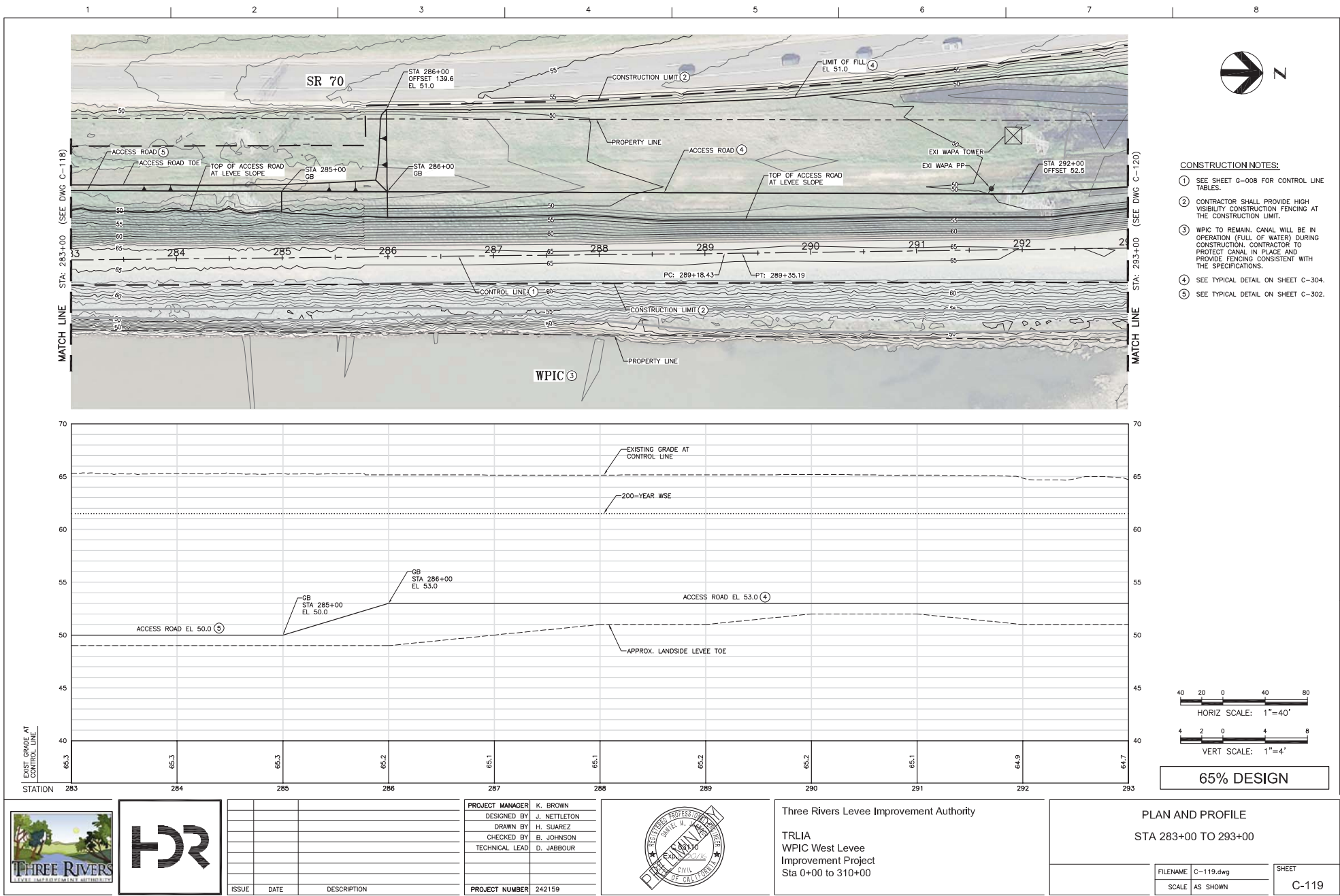


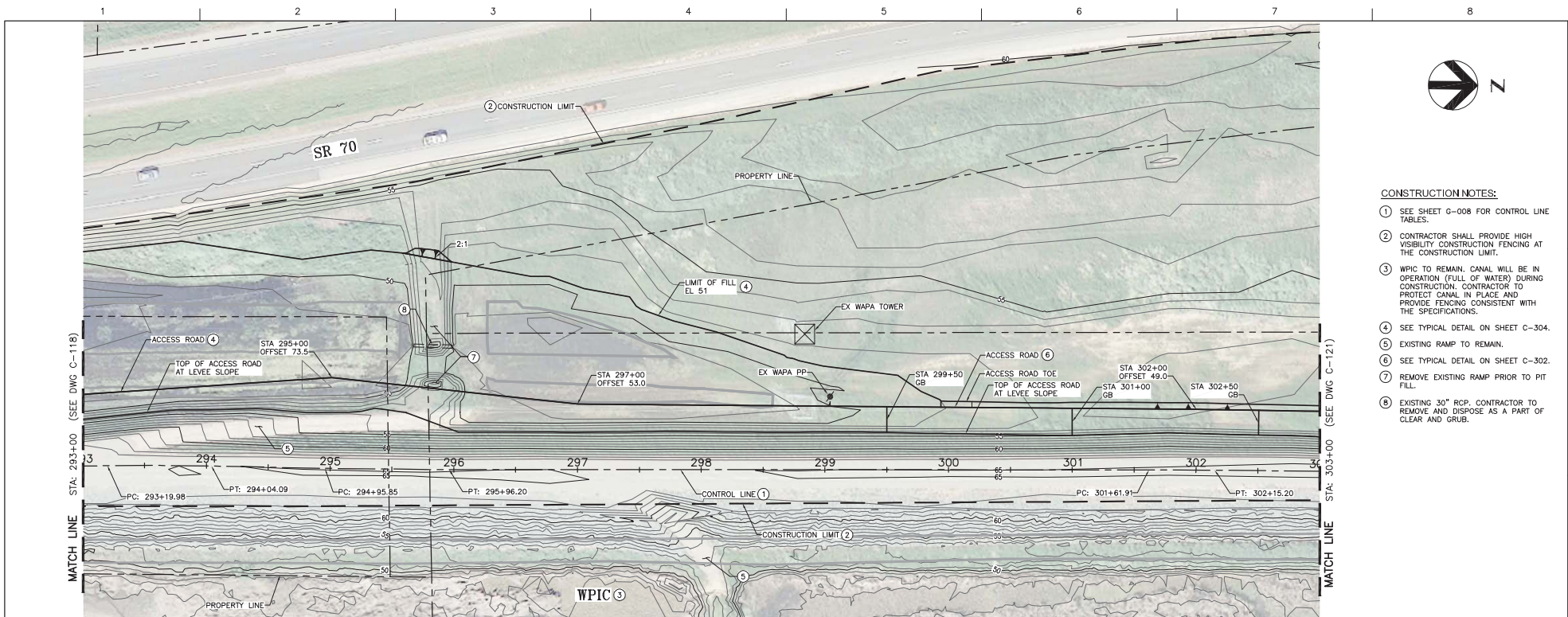
- CONSTRUCTION NOTES:**
- SEE SHEET G-008 FOR CONTROL LINE TABLES.
 - CONTRACTOR SHALL PROVIDE HIGH VISIBILITY CONSTRUCTION FENCING AT THE CONSTRUCTION LIMIT.
 - WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL OF WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THE SPECIFICATIONS.
 - SEE TYPICAL DETAIL ON SHEET C-302.
 - SEE TYPICAL DETAIL ON SHEET C-303.



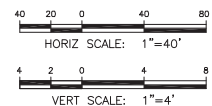
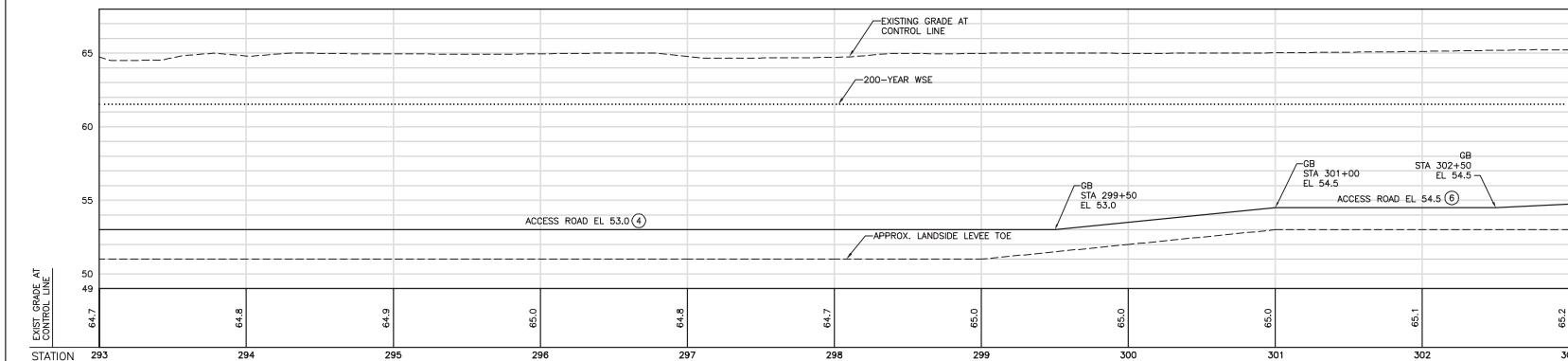
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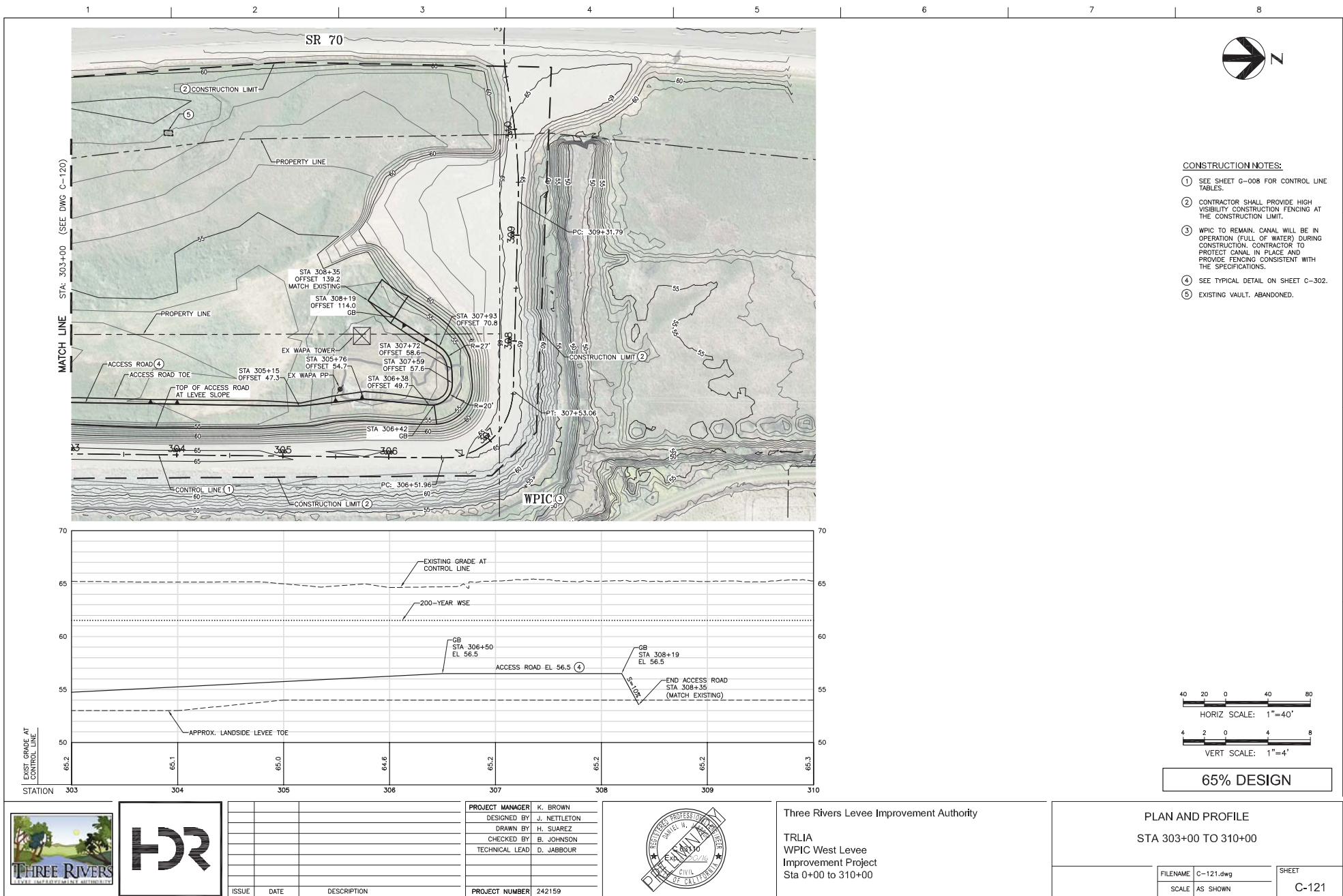


- CONSTRUCTION NOTES:**
- SEE SHEET G-008 FOR CONTROL LINE TABLES.
 - CONTRACTOR SHALL PROVIDE HIGH VISIBILITY CONSTRUCTION FENCING AT THE CONSTRUCTION LIMIT.
 - WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL OF WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THE SPECIFICATIONS.
 - SEE TYPICAL DETAIL ON SHEET C-304.
 - EXISTING RAMP TO REMAIN.
 - SEE TYPICAL DETAIL ON SHEET C-302.
 - REMOVE EXISTING RAMP PRIOR TO PIT FILL.
 - EXISTING 30" RCP. CONTRACTOR TO REMOVE AND DISPOSE AS A PART OF CLEAR AND GRUB.



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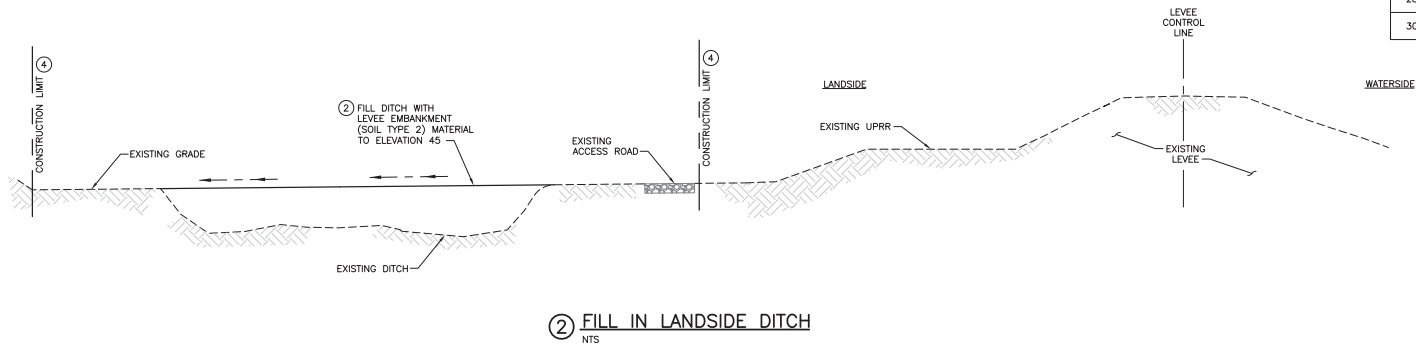
					PROJECT MANAGER	K. BROWN		Three Rivers Levee Improvement Authority TRLIA WPIC West Levee Improvement Project Sta 0+00 to 310+00	PLAN AND PROFILE STAT 293+00 TO 303+00
					DESIGNED BY	J. NETTLETON			
					DRAWN BY	H. SUAREZ			
					CHECKED BY	B. JOHNSON			
					TECHNICAL LEAD	D. JABBOUR			
					PROJECT NUMBER	242159			
			ISSUE	DATE	DESCRIPTION				



NOTES:

- 1 SEE LEVEE DEGRADE DETAIL ON SHEET C-305.
- 2 FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 3 FINISH GRADE LINES SHOWN DO NOT INCLUDE PLACEMENT OF TOPSOIL. TOPSOIL PLACEMENT SHALL BE PER PROJECT SPECIFICATIONS.
- 4 CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMIT SHOWN ON THESE PLANS.
- 5 CONSTRUCTION LIMIT SHOWN IS TYPICAL. VARIATIONS ARE SHOWN ON THE PLANS. SEE SHEET G-009 TO G-010 FOR CONSTRUCTION LIMIT LAYOUT.
- 6 WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.
- 7 CONTRACTOR SHALL SALVAGE EXISTING AGGREGATE BASE IN ACCORDANCE WITH THE SPECIFICATIONS. CROWN RESURFACING PER DETAIL ON SHEET C-305.
- 8 UPRR TO REMAIN. RAILROAD WILL BE IN OPERATION DURING CONSTRUCTION. CONTRACTOR TO PROTECT RAILROAD IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.

LEVEE SECTION SCHEDULE				
BEGIN	END	SECTION DESIGNATION	REHABILITATION MEASURE	DRAWING NO.
9+50	24+50	1	CUTOFF WALL	C-301
115+00	119+00	2	FILL IN DITCH	C-301
136+00	144+50	3	LANDSIDE ACCESS ROAD	C-302
144+50	167+50	4	CUTOFF WALL	C-302
167+50	189+50	3	LANDSIDE ACCESS ROAD	C-302
190+10	196+00	5	DRAIN BERM	C-303
196+00	238+50	3	LANDSIDE ACCESS ROAD	C-302
238+50	248+50	4	CUTOFF WALL	C-302
248+50	259+00	3	LANDSIDE ACCESS ROAD	C-302
259+00	278+00	6	STABILITY BERM	C-303
278+00	286+00	3	LANDSIDE ACCESS ROAD	C-302
286+00	300+00	7	LANDSIDE FILL	C-304
300+00	308+50	3	LANDSIDE ACCESS ROAD	C-302



65% DESIGN



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
DRAWN BY	H. SUAREZ
CHECKED BY	B. JOHNSON
TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159

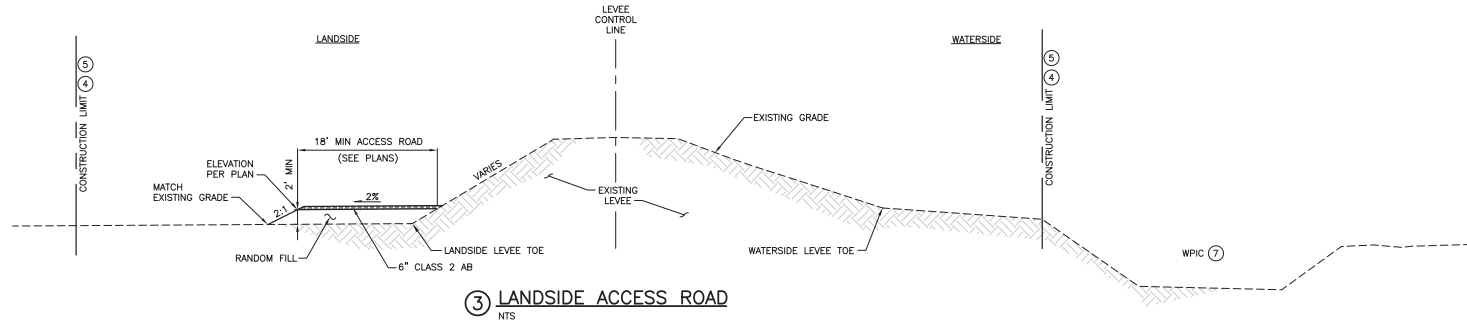


Three Rivers Levee Improvement Authority

TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

TYPICAL LEVEE SECTIONS

FILENAME	C-301.dwg	SHEET
SCALE	AS SHOWN	C-301



- NOTES:
- ① SEE LEVEE DEGRADE DETAIL ON SHEET C-305.
 - ② FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 - ③ FINISH GRADE LINES SHOWN DO NOT INCLUDE PLACEMENT OF TOPSOIL. TOPSOIL PLACEMENT SHALL BE PER PROJECT SPECIFICATIONS.
 - ④ CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMIT SHOWN ON THESE PLANS.
 - ⑤ CONSTRUCTION LIMIT SHOWN IS TYPICAL. VARIATIONS ARE SHOWN ON THE PLANS. SEE SHEET G-009 TO G-010 FOR CONSTRUCTION LIMIT LAYOUT.
 - ⑥ CONTRACTOR MAY ADJUST THE WORKING SURFACE ELEVATIONS INDICATED ON THE PLANS AS OUTLINED IN THE SPECIFICATIONS.
 - ⑦ WPIC TO REMAIN. CANAL WILL BE IN OPERATION (FULL WATER) DURING CONSTRUCTION. CONTRACTOR TO PROTECT CANAL IN PLACE AND PROVIDE FENCING CONSISTENT WITH THESE PLANS.
 - ⑧ CONTRACTOR SHALL SALVAGE EXISTING AGGREGATE BASE IN ACCORDANCE WITH THE SPECIFICATIONS. CROWN RESURFACING PER DETAIL ON SHEET C-305.

65% DESIGN



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
DRAWN BY	H. SUAREZ
CHECKED BY	B. JOHNSON
TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159




Three Rivers Levee Improvement Authority
TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

TYPICAL LEVEE SECTIONS

FILENAME	C-302.dwg	SHEET
SCALE	AS SHOWN	C-302

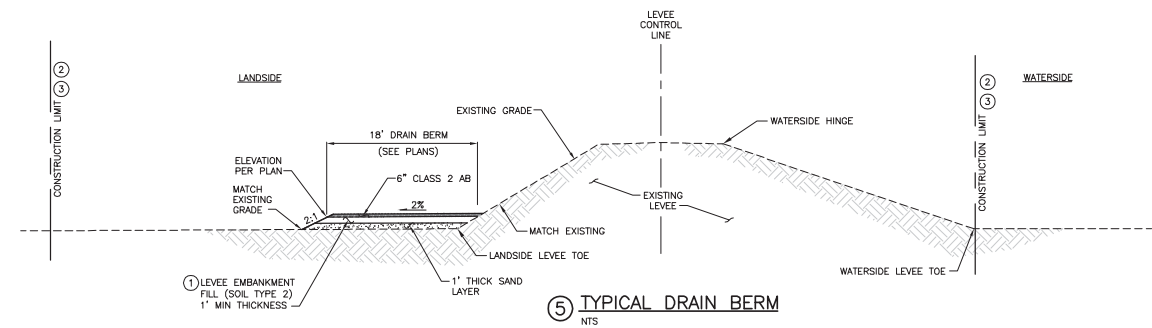
1 2 3 4 5 6 7 8

LEGEND:

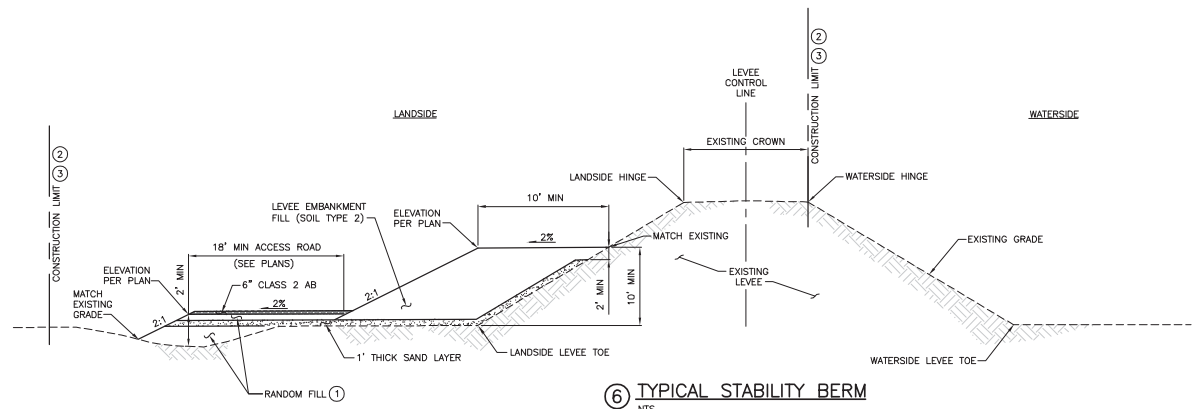
 SAND LAYER

NOTES:

- ① FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- ② CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMIT SHOWN ON THESE PLANS.
- ③ CONSTRUCTION LIMIT SHOWN IS TYPICAL. VARIATIONS ARE SHOWN ON THE PLANS. SEE SHEET G-009 TO G-010 FOR CONSTRUCTION LIMIT LAYOUT.



⑤ TYPICAL DRAIN BERM
NTS



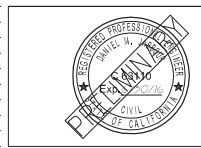
⑥ TYPICAL STABILITY BERM
NTS

65% DESIGN



ISSUE	DATE	DESCRIPTION

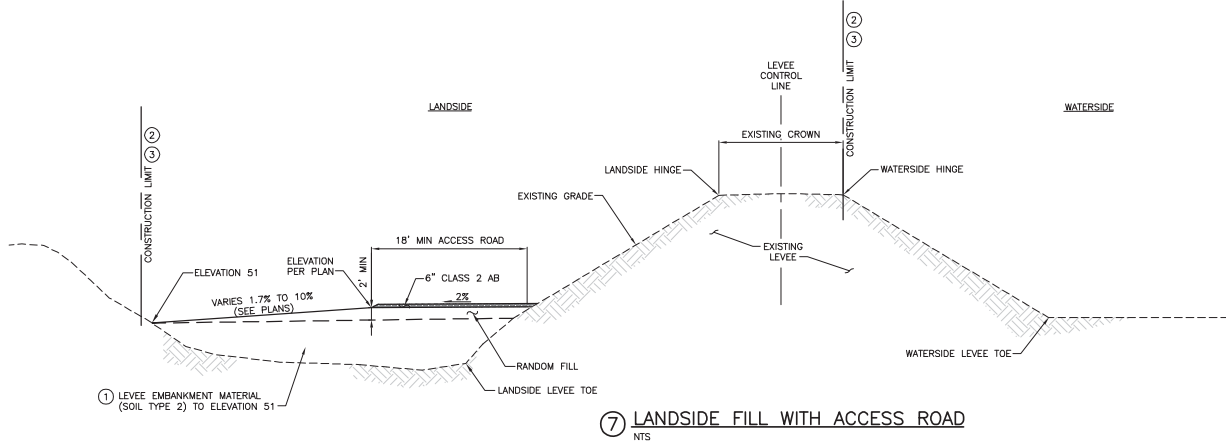
PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
DRAWN BY	H. SUAREZ
CHECKED BY	B. JOHNSON
TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159



Three Rivers Levee Improvement Authority
TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

TYPICAL LEVEE SECTIONS		
FILENAME	C-303.dwg	SHEET
SCALE	AS SHOWN	C-303

1 2 3 4 5 6 7 8



- NOTES:
- ① FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 - ② CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMIT SHOWN ON THESE PLANS.
 - ③ CONSTRUCTION LIMIT SHOWN IS TYPICAL. VARIATIONS ARE SHOWN ON THE PLANS. SEE SHEET G-009 TO G-010 FOR CONSTRUCTION LIMIT LAYOUT.

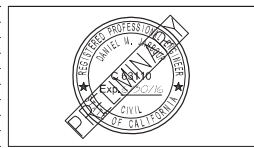
⑦ LANDSIDE FILL WITH ACCESS ROAD
NTS

65% DESIGN



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	K. BROWN
DESIGNED BY	J. NETTLETON
DRAWN BY	H. SUAREZ
CHECKED BY	B. JOHNSON
TECHNICAL LEAD	D. JABBOUR
PROJECT NUMBER	242159



Three Rivers Levee Improvement Authority
TRLIA
WPIC West Levee
Improvement Project
Sta 0+00 to 310+00

TYPICAL LEVEE SECTIONS		
FILENAME	C-304.dwg	SHEET
SCALE	AS SHOWN	C-304

State of California

DEPARTMENT OF WATER RESOURCES
CENTRAL VALLEY FLOOD PROTECTION BOARD

California Natural Resources Agency

APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD
ENCROACHMENT PERMITApplication No. _____
(For Office Use Only)

1. Description of proposed work being specific to include all items that will be covered under the issued permit.

Install approximately 3,300 feet of conventional cutoff wall approximately 50-feet deep from Sta 144+50 to 167+50 (Reach 3) and 238+50 to 248+50 (Reach 4E), and install approximately 1,500 feet of DMM cutoff wall approximately 70 feet deep from Sta 9+50 to 24+50 (Reach 1B) along the west levee of the Western Pacific Interceptor Canal.

2. Project
 Location: Yuba County, in Section 16, 9, and 4; and 33, 28, 21
 Township: 13N and 14N (N) (E)
 (S), Range: 4E and 4E (W), M. D. B. & M.
 Latitude: 38.58.34N Longitude: 121.32.06W
 Stream: WPIC, Levee: WPIC west Designated Floodway: WPIC
 APN: See attached.

3. Three Rivers Levee Improvement Authority of 1114 Yuba Street, Suite 218
 Name of Applicant / Land Owner Address
Marysville California 95901 530-749-7841
 City State Zip Code Telephone Number
pbrunner@co.yuba.ca.us
 E-mail

4. Paul Brunner of Three Rivers Levee Improvement Authority
 Name of Applicant's Representative Company
Marysville California 95901 530-749-7841
 City State Zip Code Telephone Number
pbrunner@co.yuba.ca.us
 E-mail

5. Endorsement of the proposed project from the Local Maintaining Agency (LMA):

We, the Trustees of Reclamation District 784 approve this plan, subject to the following conditions:
 Name of LMA

☐ Conditions listed on back of this form☒ Conditions Attached☐ No Conditions

Pick Brown 5/5/15 [Signature] 5/5/15
 Trustee Date Trustee Date
[Signature] 5/5/15 [Signature] 5/5/15
 Trustee Date Trustee Date

RECLAMATION DISTRICT NO. 784 – ENDORSEMENT CONDITIONS
WESTERN PACIFIC INTERCEPTOR CANAL
SLURRY CUTOFF WALL PROJECT STATION 0+00 TO 310+00

Reclamation District No. 784 has the following conditions of endorsement to be included on the Central Valley Flood Protection Board Encroachment Permit for the Three Rivers Levee Improvement Authority Western Pacific Interceptor Canal Slurry Cutoff Wall Project. The conditions are as follows:

1. All improvements shall meet or exceed Central Valley Flood Protection Board Title 23, Department of Water Resources, DWR Urban Levee Design Criteria, FEMA, **Reclamation District No. 784**, and U.S Army Corps of Engineers Standards and requirements.
2. All work endorsed by this permit shall be in accordance with the drawings and specifications dated 65 Percent Drawings WPIC West Levee Improvement Project Station 0+00 to 310+00. **Reclamation District No. 784** shall review and acknowledge (approve) the 100 percent plans prior to bidding and construction. No work shall commence until improvement plans and specification are approved by **Reclamation District No. 784**.
3. The permittee shall be responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the **Reclamation District No. 784**, Central Valley Flood Protection Board, and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.
4. The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board, **Reclamation District No. 784**, and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.
5. The Central Valley Flood Protection Board, Department of Water Resources, and **Reclamation District No. 784** shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, construction, operation, maintenance, inspection, or emergency repair.
6. A copy of operation and maintenance manual for the pipe line shall be provided to **Reclamation District No. 784** upon completion of the work. The O&M manual shall include provisions for annual inspection (i.e. pressure test, video of pipe, etc.) which meet or exceed the CVFPB, DWR, USACE, TRLIA, and **Reclamation District No. 784** standards. The results of the annual inspection shall be provided to **Reclamation District No. 784** prior to November 1 each year.
7. The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley

RECLAMATION DISTRICT NO. 784 – ENDORSEMENT CONDITIONS
WESTERN PACIFIC INTERCEPTOR CANAL
SLURRY CUTOFF WALL PROJECT STATION 0+00 TO 310+00

Flood Protection Board or **Reclamation District No. 784** may remove the encroachment(s) at the permittee's expense.

8. The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation and maintenance of the flood control project to interfere, the permittee shall be required, at permittee's sole cost and expense, to modify or remove the permitted encroachment(s).
9. If the project or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project, at the permittee's or successor's sole cost and expense.
10. The proposed project shall not increase, as determined by the U.S. Corps of Engineers and the California Central Valley Flood Protection Board, the 1-in-100 and 1-in-200 water surface elevation or the velocity on the Western Pacific Interceptor Canal.
11. A set of As-Built Mylar plans and specifications shall be provided to **Reclamation District No. 784** upon completion of the work.
12. A copy of the final Central Valley Flood Protection Board Permit shall be provided to **Reclamation District No. 784** upon approval of the permit by the CVFPB Board.
13. **Reclamation District No. 784** shall be notified five (5) working days prior to any construction activities.

State of California

DEPARTMENT OF WATER RESOURCES
CENTRAL VALLEY FLOOD PROTECTION BOARD

California Natural Resources Agency

**APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD
ENCROACHMENT PERMIT**Application No. _____
(For Office Use Only)

1. Description of proposed work being specific to include all items that will be covered under the issued permit.

Along the landside of the Western Pacific Inceptor Canal west levee, placement of fill from Sta 115+00 to 119+00 (Reach 2B) and Sta 286+00 to 310+50 (Reach 5D); construction of a drained berm from Sta 190+10 to 196+00 (Reach 4B); construction of a stability berm from Sta 259+00 to 278+00 (Reach 5B); and construction of a toe access road from Sta 135+00 to 309+00.

2. Project

Location: Yuba County, in Section 16, 9, and 4; and 33, 28, 21
(N) (E)
Township: 13N and 14N (S), Range: 4E and 4E (W), M. D. B. & M.
Latitude: 38.58.34N Longitude: 121.32.06W
Stream: WPIC, Levee: WPIC west Designated Floodway: WPIC
APN: See attached.

3. Three Rivers Levee Improvement Authority of 1114 Yuba Street, Suite 218
Name of Applicant / Land Owner Address
Marysville California 95901 530-749-7841
City State Zip Code Telephone Number
pbrunner@co.yuba.ca.us
E-mail

4. Paul Brunner of Three Rivers Levee Improvement Authority
Name of Applicant's Representative Company
Marysville California 95901 530-749-7841
City State Zip Code Telephone Number
pbrunner@co.yuba.ca.us
E-mail

5. Endorsement of the proposed project from the Local Maintaining Agency (LMA):

We, the Trustees of Reclamation District 784 approve this plan, subject to the following conditions:
Name of LMA

☐ Conditions listed on back of this form☒ Conditions Attached☐ No Conditions

Trustee

Date

Trustee

Date

Trustee

Date

Trustee

Date

**RECLAMATION DISTRICT NO. 784 – ENDORSEMENT CONDITIONS
WEST LEVEE OF WESTERN PACIFIC INTERCEPTOR CANAL**

**PLACEMENT OF FILL (STA 115+00 TO 119+00 - REACH 28)
PLACEMENT OF FILL (STA 286+00 TO 310+50 - REACH 50)
CONSTRUCTION OF DRAINAGE BERM (STA 190+10 TO 196+00 - REACH 48)
CONSTRUCTION OF STABILITY BERM (STA 259+00 TO 278+00 - REACH 58)
CONSTRUCTION OF TOE ACCESS ROAD (STA 135+00 TO 309+00)**

Reclamation District No. 784 has the following conditions of endorsement to be included on the Central Valley Flood Protection Board Encroachment Permit for the Three Rivers Levee Improvement Authority west levee of Western Pacific Interceptor Canal Project. The work includes placement of fill (Station 115+00 to 119+00 – Reach 28) and Station 286+00 to 310+50 – Reach 50), construction of drained berm (Station 190+10 to 196+00), construction of stability berm (Station 259+00 to 278+00), and construction of toe access road (Station 135+00 to 309+00). The conditions are as follows:

1. All improvements shall meet or exceed Central Valley Flood Protection Board Title 23, Department of Water Resources, DWR Urban Levee Design Criteria, FEMA, **Reclamation District No. 784**, and U.S Army Corps of Engineers Standards and requirements.
2. All work endorsed by this permit shall be in accordance with the drawings and specifications dated 65 Percent Drawings WPIC West Levee Improvement Project Station 0+00 to 310+00. **Reclamation District No. 784** shall review and acknowledge the 100 percent plans prior to bidding and construction. No work shall commence until improvement plans and specification are approved by **Reclamation District No. 784**.
3. The permittee shall be responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the **Reclamation District No. 784**, Central Valley Flood Protection Board, and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.
4. The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board, **Reclamation District No. 784**, and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.
5. The Central Valley Flood Protection Board, Department of Water Resources, and **Reclamation District No. 784** shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, construction, operation, maintenance, inspection, or emergency repair.
6. A copy of operation and maintenance manual for the pipe line shall be provided to **Reclamation District No. 784** upon completion of the work. The O&M manual shall include provisions for annual inspection (i.e. pressure test, video of pipe, etc.) which meet or exceed the CVFPB,

**RECLAMATION DISTRICT NO. 784 – ENDORSEMENT CONDITIONS
WEST LEVEE OF WESTERN PACIFIC INTERCEPTOR CANAL**

PLACEMENT OF FILL (STA 115+00 TO 119+00 - REACH 28)
PLACEMENT OF FILL (STA 286+00 TO 310+50 - REACH 50)
CONSTRUCTION OF DRAINAGE BERM (STA 190+10 TO 196+00 - REACH 48)
CONSTRUCTION OF STABILITY BERM (STA 259+00 TO 278+00 - REACH 58)
CONSTRUCTION OF TOE ACCESS ROAD (STA 135+00 TO 309+00)

DWR, USACE, TRLIA, and **Reclamation District No. 784** standards. The results of the annual inspection shall be provided to **Reclamation District No. 784** prior to November 1 each year.

7. The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board or **Reclamation District No. 784** may remove the encroachment(s) at the permittee's expense.
8. The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation and maintenance of the flood control project to interfere, the permittee shall be required, at permittee's sole cost and expense, to modify or remove the permitted encroachment(s).
9. If the project or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project, at the permittee's or successor's sole cost and expense.
10. The proposed project shall not increase, as determined by the U.S. Corps of Engineers and the California Central Valley Flood Protection Board, the 1-in-100 and 1-in-200 water surface elevation or the velocity on the Western Pacific Interceptor Canal.
11. A set of As-Built Mylar plans and specifications shall be provided to **Reclamation District No. 784** upon completion of the work.
12. A copy of the final Central Valley Flood Protection Board Permit shall be provided to **Reclamation District No. 784** upon approval of the permit by the CVFPB Board.
13. **Reclamation District No. 784** shall be notified five (5) working days prior to any construction activities.